

CORRES CONTROL  
OUTGOING LTR #

DOE ORDER #

05-RF-00825

DIST LTR ENC

CROCKETT, G

FERRERA, D.W.

GILPIN, H.E.

LONG, J.W.

LINDSAY, D. C.

SHELTON, D.C. X X

TUOR, N.R.

SNYDER, D

MCGRORY, M

HADACEK, M

KAISER, M.

BEAN, C.

LINSINBIGLER, H

NESTA, S. X X

NARO, D X X

Heser X

August 31, 2005



05-RF-00825

Colorado Department of Labor and Employment  
Division of Oil and Public Safety  
Attn. T. R. Kelley  
Tower 3, Suite 610  
1515 Arapahoe Street  
Denver, CO 80202-2117

SITE CHARACTERIZATION REPORT FOR HISTORICAL RELEASE OF DIESEL FUEL –  
SMN-056-05

Enclosed you will find two copies of the Site Characterization Report for a historical release of diesel fuel that was discovered during the tank closure and removal activities that took place on March 10, 2005 at the Rocky Flats Environmental Technology Site (RFETS). The release was reported to The Division of Oil and Public Safety on March 11, 2005 and was assigned event identification number 9752. The Facility Identification number for these underground storage tanks is 14897.

The historical release was discovered during excavation activities associated with the closure and removal of five underground storage tanks. These re-enforced fiberglass tanks were originally installed in 1995 and are located just north of the Building 331 maintenance garage and refueling station for RFETS vehicles. The tanks were installed in a large underground tank vault. The vault was lined with a synthetic-geotextile liner to prevent groundwater infiltration. The five tanks were installed and the vault was backfilled with pea gravel. The release was confined to the lined tank vault.

The entire contents of the tank vault (tanks, backfill and incidental water) was remediated and disposed of. At this point the geotextile liner was removed and a visual inspection of the excavation indicated no additional release outside the boundaries of the tank vault. Upon completion of the remediation activities, confirmation samples were collected to verify that all contaminated soils were removed. The analytical results confirmed that the impacted area had been successfully remediated to below Tier I action levels and that no contamination had extended past the lined tank vault. Additional remedial actions are not required. Because of the quick response to this release many of the questions on the Site Characterization Report were not applicable.

If you should have any additional questions regarding the information provided in the Site Characterization Report, please contact me at (303) 966-6386.

CORRES CONTROL X X

PATS

ADMN. RECORD

WASTE REC CTR

TRAFFIC

## CLASSIFICATION:

JCNI

INCLASSIFIED

CONFIDENTIAL

SECRET

AUTHORIZED CLASSIFIER

SIGNATURE:

NA

Date:

IN REPLY TO RFP CC #:

Stephen M. Nesta  
Environmental Manager  
Kaiser-Hill Company, LLC

## ACTION ITEM STATUS:

☐ PARTIAL/OPEN☐ CLOSED

MAH:rlm

Enclosure:

As Stated

## LTR APPROVALS:

Last Name)

Last Name)

cc:

ORIG. &amp; TYPIST INITIALS:

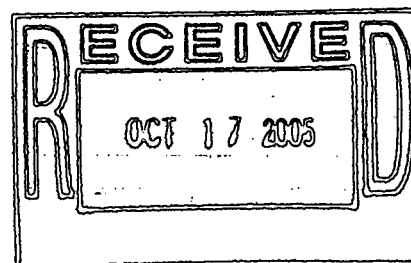
John Rampe – DOE

MAH:rlm

Letter # SMN-056-05

Kaiser-Hill Company, LLC

Rocky Flats Environmental Technology Site, 10808 Hwy. 93 Unit B, Golden CO 80403-8200 303-966-7000



ADMIN RECORD

IA-A-002832

33/33

# **SITE CHARACTERIZATION REPORT (SCR)**

Submit the completed SCR to:

Colorado Department of Labor and Employment  
Oil Inspection Section  
(Technical Reviewer's Name - if known)  
Tower 3, Suite 610  
1515 Arapahoe Street  
Denver, CO 80202-2117

This standardized format is required for all SCRs submitted to the Colorado Oil Inspection Section for releases occurring on or after February 1, 1999.

This SCR is intended to replace the Initial Site Characterization Report (ISCR). In addition to the information formerly included in the ISCR, it is required that the SCR define the extent of contamination. The SCR incorporates risk based corrective actions through Tier 1 or Tier 1A, as appropriate to the site. This report must be submitted in duplicate.

## **IMPORTANT**

**Refer to the OIS Owner/Operator Guidance Document for assistance in report preparation.**

**This report is required to be submitted within 90 days of the release.**

**If contamination has never been detected above Tier 1 and/or MCLs, a No Further Action Request (NFAR) Report may be submitted in place of this SCR.**

**SITE CHARACTERIZATION REPORT****SITE INFORMATION**

Site Name: Rocky Flats Environmental Technology Site		Type of Business on Site: Government Facility	
Site Address: 10808 Highway 93			
City: Golden		County: Jefferson	Zip Code: 80403
Phone Number: 303-966-6386		Fax Number: 303-966-8482	
Site Contact Person: Stephen Nesta			

**OWNER/OPERATOR INFORMATION**

Name: Owner - United States Department of Energy// Operator - Kaiser-Hill Company LLC		
Address: Owner - 10808 Highway 93; Mail Stop MV72// Operator - 10808 Highway 93; B460		
City: Golden	State: Colorado	Zip Code: 80403
Phone Number: 303-966-6386	Fax Number: 303-966-8482	
Contact Person: Owner - Joseph Legare // Operator - Stephen Nesta		

**ENVIRONMENTAL CONSULTANT INFORMATION**

Name: Kaiser-Hill Company LLC		
Address: 10808 Highway 93		
City: Golden	State: Colorado	Zip Code: 80403
Phone Number: 303-966-6386	Fax Number: 303-966-8482	
Contact Person: Stephen Nesta		

Date Report Was Completed: August 29, 2005

**INSTRUCTIONS FOR COMPLETING REPORT:** Complete all applicable sections and appendices of this report. If a question does not apply to the site, insert ANA=.

Limit your responses to the suggested space(s). If you are using the computer version of this form, the bracketed number after each question (e.g. [2]) is the number of suggested lines for each answer. Do not use bold type when answering, except as requested in the Tables of the Appendices. Insert rows in tables as needed, and delete any unused rows. Contact the Oil Inspection Section technical assistance line at (303) 318-8547 if you have any questions. The OIS Regulations, Guidance Document, Report Formats and additional program related information can be found at the Oil Inspection Website at <http://oil.cdle.state.co.us>. Call (303) 321-4164 for a copy of the Regulations (commodity # 615-82-44-0899) or the Guidance Document (commodity # 615-82-44-0626).

## SITE CHARACTERIZATION REPORT SUMMARY

What type of product was released? (Check all that apply) Leaded Gasoline ☐ Unleaded Gasoline ☒ Diesel ☒ Waste Oil ☐ Other ☐

Is there evidence of any released hazardous substance on the site? (If this is an AST release and it exceeds the RCRA level for TCLP benzene, it is a hazardous substance.) Yes ☐ No ☒ (check one). If yes, contact the Colorado Department of Public Health and Environment.

Does soil contamination exist?(check all that apply) Onsite ☒ Offsite ☐ If so, what is the vertical extent of soil contamination? From 0 ft to 15 ft. What is the soil type? Tank vault consisted of a geotextile-lined excavation with dimensions of 60' wide by 75' long by 15' deep. Within the excavation were 5 fiberglass underground storage tanks. The excavation was backfilled with pea gravel commonly referred to as squeegee. The released material was confined to the lined tank vault. There was no evidence of any released material to the native soil located outside of the geotextile liner. The native soil consists of cobbly, sandy loam from 1-6' deep and gradually turning into a clay soil mixture at lower depths.

Does groundwater contamination exist?(check all that apply) Onsite ☐ Offsite ☐

Is free product present in the soil or groundwater? Yes ☐ No ☒

The free product discovered was confined to the lined tank vault.

What is the depth to groundwater (in feet)? Variable - but typically 8' -10'

For each category, list the distance from the source to the nearest point of exposure (POE).  
Only list POEs within 1/4 mile of the site.

	Property Boundary	Surficial Soils	Subsurface Utilities	Structures	Groundwater Wells	Surface Water	Sensitive Environment
Distance (ft)	> 1/4 mile	0-2'	50'	15'	20'	> 1/4 mile	> 1/4 mile

List the highest concentration of the following constituents found

	Benzene	Toluene	Ethyl Benzene	Xylenes	TVPH	TEPH	TPH	Oil & Grease	Other
Soil (mg/Kg)	<MDL	<MDL	<MDL	0.02	N/A	N/A	190	N/A	
Water (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Vapor (µg/m <sup>3</sup> )	<MDL	<MDL	<MDL	<MDL	<MDL	N/A	N/A	N/A	

List the highest concentration of the following constituents remaining on site

	Benzene	Toluene	Ethyl Benzene	Xylenes	TVPH	TEPH	TPH	Oil & Grease	Other
Soil (mg/Kg)	<MDL	<MDL	<MDL	0.02	N/A	N/A	190	N/A	
Water (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Vapor (µg/m <sup>3</sup> )	0	0	0	0	N/A	N/A	N/A	N/A	

## TABLE OF CONTENTS

A.	RELEASE INFORMATION .....	1
B.	SITE HISTORY .....	1
C.	RELEASE CONFIRMATION .....	2
D.	SITE CLASSIFICATION AND INITIAL RESPONSE/ABATEMENT .....	3
E.	FREE PRODUCT .....	4
F.	SOIL INVESTIGATION .....	5
G.	SOIL VAPOR INVESTIGATION .....	7
H.	GROUNDWATER INVESTIGATION .....	8
I.	QUALITY ASSURANCE/QUALITY CONTROL .....	8
J.	GEOLOGY AND HYDROGEOLOGY .....	9
K.	POINTS OF EXPOSURE .....	10
L.	EXPOSURE PATHWAYS .....	12
M.	LAND USE .....	13
N.	RISK BASED SCREENING LEVEL (RBSL) SELECTION .....	14
O.	TOTAL PETROLEUM HYDROCARBONS (TPH)/POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) .....	15
P.	TIER 1A .....	16
Q.	RECOMMENDATIONS .....	17
APPENDIX A - INSTRUCTIONS .....		18
APPENDIX B - TABLES .....		23
TABLE 1- SUMMARY OF ORGANIC VAPOR METER READINGS .....		24
TABLE 2 - SUMMARY OF SOIL LABORATORY RESULTS .....		25
TABLE 2a - SUMMARY OF SOIL PAH LABORATORY RESULTS .....		26
TABLE 3 - SUMMARY OF VAPOR LABORATORY RESULTS .....		26
TABLE 4 - SUMMARY OF GROUNDWATER LABORATORY RESULTS .....		28
TABLE 5 - GROUNDWATER ELEVATION .....		29
TABLE 6 - SUMMARY OF WATER WELL INFORMATION .....		30
APPENDIX C - FIGURES .....		31
APPENDIX D - LABORATORY DOCUMENTATION .....		32
APPENDIX E - BOREHOLE LITHOLOGIC LOGS .....		33
AND WELL COMPLETION		
APPENDIX F - WASTE DISPOSAL MANIFESTS .....		34
APPENDIX G - SITE CLASSIFICATION CHECKLIST .....		35
APPENDIX H - SUPPORTING DOCUMENTATION .....		38

**A. RELEASE INFORMATION****1. History of this release.**

- a) Date of release (If actual release date is unknown, input the date that the release was first suspected). March 10, 2005
- b) Date that OIS was notified of the suspected release. March 11, 2005
- c) Date that the suspected release was confirmed. March 11, 2005
- d) Date that OIS was notified of the confirmed release. March 11, 2004
- e) Include the location of the release on Figure 1, Appendix C.

**2. How release was discovered.**

- a) Discovered at tank removal or closure in place: Yes
- b) Discovered during subsurface investigation: No
- c) Discovered as a result of release detection or system failure: No
- d) Impacts discovered at off-site property: No
- a) Other (describe) [1]

**3. Release description.**

- b) Product(s) released: Diesel Fuel
- c) Quantity released: 150-200 gallons

**B. SITE HISTORY****1. List known historical uses of the site on the table below.**

Type of Use and/or Business Name	Begin Date	End Date
United States Department of Energy – Nuclear weapons production	1952	1989
USDOE – Rocky Flats Environmental Technology Site – CERCLA Site cleanup and facility closure	1991	Present

**2. Describe any previous releases at the site on the table below.**

Date of Prior Release	Product	Quantity (gallons)	Source/Cause of Release (Identify location on Fig. 1)	No Further Action Letter Issued? (y/n) (If yes enter date)
11/21/1994	Diesel	unknown	Spills & Overfills of 4 original USTs located just south of this tank vault.	Yes RFCA Attachment 13

**3. If a no further action letter has not been issued for a previous release explain on-going activities [1].****C. RELEASE CONFIRMATION****1. Storage tank removal/closure in place. (Complete Section F-1 to describe tank excavation dimensions, soil laboratory results, etc.).**

a) How many tanks were removed or closed in place? Five re-enforced fiberglass USTs were removed.

b) How many tanks remain on site which are in operation? None

c) How many tanks remain on site which have not been properly closed in place? None

d) List on the table below information concerning tank removal/closure in place. (Tank # as identified on Figure 1 and/or Figure 2, Appendix C).

Tank #	Date Removed or Closed	Indicate closed in place(I), removed (R)	Tank Condition (corrosion, holes, etc.)	Contamination Suspected? (y/n)	Samples Analyzed? (y/n)
14897-1	3/10/05	R	brittle	yes	No
14897-2	3/11/05	R	brittle	yes	No
14897-3	3/12/05	R	brittle	yes	No
14897-4	3/12/05	R	brittle	yes	No
14897-6	3/12/05	R	brittle	yes	No

e) Were tank removal or closure in place activities performed in accordance with API recommended practice 1604, or equivalent? Yes If no, describe tank removal/closure in place activities?.

**2. Subsurface investigation performed prior to a confirmed release, such as for a property transaction, or to confirm release detection or system failure. (Complete Section F-2 to describe soil boring installations, soil laboratory results, etc.).**

a) List on the table below information concerning site investigation.

Sample #	Date of Investigation	Contamination Suspected? (y/n)	Samples Analyzed? (y/n)
N/A			

b) If this investigation was performed as the result of release detection or system failure what part of the UST system failed? N/A

i. Was the system repaired? N/A

ii. Date of repair. N/A

#### D. SITE CLASSIFICATION AND INITIAL RESPONSE/ABATEMENT

##### 1. Site Classification Table.

a) Complete the Site Classification Table presented in Appendix G.

b) What is the current site classification? 4

c) Has the site classification changed since the submittal of the Site Summary Form (SSF)? (As the extent of contamination is defined at the time of this report, the Site Classification Table will no longer contain unknown (U) threats). No

d) What classification was indicated for the site on the SSF? N/A

2. Initial response and abatement. (Did the site classification ever indicate the need for an emergency response? No If yes, answer the following questions and include all supporting documentation such as required permits in Appendix H, and waste manifests in Appendix F.)

a) Was the presence of explosive vapors ever detected at the site? No

i. If yes what actions were taken to mitigate explosion risks? N/A

ii. Have these actions been completed? N/A

b) Was the presence of vapors or surficial particulates, in concentrations which may cause acute health effects, ever detected at the site? No

i. If yes, what actions were taken to mitigate the acute health risks? N/A

ii. Have these actions been completed? N/A

c) Was the presence of free product on the ground surface, surface water, exposed soils, or in utilities ever detected at the site? Yes - free product was present in the backfill material of the tank vault excavation.

i. If yes, what actions were taken to mitigate these conditions? The area of release was confined to an underground storage tank vault. The five USTs were originally installed in 1995. At that time, a large vault measuring 75' long by 60' wide by 15' deep was excavated and lined with a geotextile liner to prevent groundwater infiltration. Five underground storage tanks were installed in the lined tank vault. The vault was then backfilled with pea

gravel. The area was capped with a concrete and asphalt pad. The fuel pumps and fuel dispensers are located directly above the tank vault.

As part of the site's closure activities, the USTs were being removed from service. The concrete pad was removed and excavation activities started on 3/10/05 when diesel-stained pea gravel and diesel odors were identified. The historical spill was called in on 3/11/05 and issued event ID # 9752. All materials (e.g. tanks, pea gravel) were excavated from the tank vault at which time the geotextile liner was removed. Visual inspection of the native soils surrounding the tank vault indicated no presence of any released petroleum products. Biased sampling of all four side walls and the base of the excavation was conducted. All sampling results confirmed that the release was confined to the tank vault area.

ii. Have these actions been completed? Yes

d) Was any water supply well, supply line, storm water, or surface water body ever impacted by the release? No

i. If yes what actions were taken to mitigate the risk of exposure to these Points of Exposure (POEs)? N/A

ii. Have these actions been completed? N/A

e) Are there any other site classification sub-classifications, which relate to potential emergency situations, as listed above (e.g., Sub-classification 2.1 - Explosive vapors may accumulate in buildings within six months) currently applicable to this site? No

i. If yes, are activities underway or completed to mitigate these threats? N/A

ii. Will mitigation activities be included in the corrective action plan (CAP)? N/A

## **E. FREE PRODUCT**

1. Complete this section if free product has been discovered in wells, borings, or excavations.

No free product was discovered except for that identified in section D.2.c.i. above.

2. Free Product in Wells or Borings

a) Provide information regarding free product located in wells or borings in Tables 4 and 5, Appendix B. N/A

b) On what date was free product discovered? N/A

c) On what date was the OIS notified of the presence of free product? N/A

d) Has free product been recovered? N/A

e) If so, what was the recovery method? N/A

f) What was the quantity recovered? N/A

g) How was recovered free product disposed? N/A

**3. Free Product in Excavations**

a) Provide information regarding free product discovered in excavations.

Date Discovered	Location	Product Thickness	Recovery Method	Date Recovery Completed	Quantity Recovered
3/10/05	B331 tank vault	1"	Pump & Treat	3/13/05	~ 100 gallons of diesel

b) On what date was the OIS notified of the presence of free product? 3/11/05

c) How was recovered free product disposed? The free product was mixed with incidental water. The incidental water included water from snowmelt and water trapped inside the lined tank vault. The water and diesel mixture was pumped out and treated at the on site water treatment facility.

**F. SOIL INVESTIGATION**

1. Excavations. (Includes excavations, trenches and construction excavations.)

a) Excavation dimensions.

i. Complete the following table for each excavation.

Excavation #	Length of Excavation	Width of Excavation	Depth of Excavation	Depth to Groundwater in Excavation (if present)
1	75'	60'	15'	No groundwater encountered

ii. Plot the location of each excavation (include excavation #) on Figure 2, Appendix C.

b) Excavation Organic Vapor Meter (OVM) screening measurements. OVM analysis using a portable photoionization detector was conducted during excavation activities with all results less than method detection levels.

i. List all OVM measurements on Table 1, Appendix B.

ii. Indicate the locations of OVM measurements (which did not have a laboratory analysis performed at the same location) on Figure 2a, Appendix C.

**c) Excavation Soil Sampling.**

- i. List all soil laboratory results on Table 2, Appendix B. Identify the locations where samples were obtained on Figure 2, Appendix C.
- ii. List the rationale for the sampling locations on Table 2, Appendix B.
- iii. Present geological observations including lithology in section J.
- iv. Were soils samples collected according to procedures filed with the OIS as part of the Listed Consultant program? No According to the OIS Owner/Operator Guidance Document? No If neither, describe soil sampling collection procedures. [3]

**d) Soil Disposition**

- i. Complete the following table if any soils were excavated.

Excavation Number	Cubic Yards of Contaminated* Soil Excavated	Disposition of Contaminated* Soil	Cubic Yards of Clean Soil Excavated	Disposition of Clean Soil
1	2960	Disposal at BFI - Highway 93 Landfill	None	N/A

\* Soil concentrations above Tier 1 RBSLs and 500 mg/kg TPH.

- ii. Attach waste disposal manifests in Appendix F. Attached a summary report of all Bill of Lading shipping reports. A copy of all shipping paperwork can be collected and submitted if requested by OIS.

- e) If groundwater was detected in the excavation complete Section H. No groundwater was encountered. The tank vault was lined with a geotextile liner that prevented groundwater infiltration. There was some incidental water encountered in the tank vault during the excavation activities. The incidental water included water from snowmelt and water trapped inside the lined tank vault. The water and diesel mixture was pumped out and treated at the on site water treatment facility.

- f) Was extent defined to Tier 1 RBSLs and to the TPH threshold level of 500 mg/Kg? Yes If no, why not? [2]

**2. Soil Borings/Direct Push Points**

No soil boring was conducted as a result of this release.

- a) Borehole/direct push OVM screening. N/A

- i. Include the OVM screening measurements on the boring logs (Appendix E) for samples screened during the boring installations.
- ii. Indicate the locations of the borings (which did not have laboratory analyses of soil collected from the boring) on Figure 3a, Appendix C.

**b) Soil Sampling in the borehole/direct push points - N/A**

- i. List all soil laboratory results on Table 2, Appendix B. Present boring locations on Figure 3, Appendix C.
- ii. List the rationale for the sampling locations on Table 2, Appendix B.
- iii. Present geological observations including lithology on the boring logs (Appendix E) and in section J.
- iv. Were soils samples collected according to procedures filed with the OIS as part of the Listed Consultant program? N/A According to the OIS Owner/Operator Guidance Document? N/A If neither, describe soil sampling collection procedures. [3]

**c) Soil Disposition - N/A**

- i. Were any contaminated soils generated during borehole installation activities? N/A
- ii. If yes, how were they disposed. [1]
- iii. If any contaminated soils were disposed, attach waste disposal manifests in Appendix F.

**d) Was the extent of soil contamination defined to Tier 1 RBSLs and to the TPH threshold value of 500mg/Kg? N/A If no, why not? [2]****G. SOIL VAPOR INVESTIGATION**

1. Was the purpose of soil vapor sample collection to assist in defining the extent of petroleum hydrocarbon contamination in the subsurface? N/A - The area of release was confined to an underground storage tank vault. Contamination outside the boundary of the lined tank vault was not identified as determined by sample analysis. Therefore, a soil vapor investigation was not required.
2. Was the purpose of soil vapor sample collection to identify threats to structures that may be impacted from soil vapors? N/A If yes briefly describe rationale for selected locations and depths (e.g., proximity to source, soil types, utilities, etc.) [3]
3. How many samples were collected from each point? N/A
4. Show the location of each sampling point on Figure 4, Appendix C. List sample results, sample location rationale, and depths on Table 3, Appendix B.
5. What was the vapor point installation method? N/A
6. What was the method of sample collection? N/A
7. Were vapor samples collected according to procedures filed with the OIS as part of the Listed Consultant program? N/A According to the OIS Owner/Operator Guidance Document? N/A If neither, describe vapor sampling collection procedures. [3]

**H. GROUNDWATER INVESTIGATION****1. Were monitoring wells installed, and groundwater sampled? No**

- a) **What is the average depth to groundwater at the site?** The groundwater depth fluctuates at the Rocky flats Environmental Technology Site depending on the water table, time of year and location at site. Typically the groundwater fluctuates between 4-8 feet. At this time of year the groundwater levels are depressed.
- b) **For each monitoring well completed at the site list information regarding surveyed elevation of the measuring point, depth to groundwater, depth to product and groundwater elevation on Table 5, Appendix B. Present the locations of the monitoring wells, including groundwater elevation values on Figure 6, Appendix C.** N/A
- c) **List all groundwater laboratory results on Table 4, Appendix B. Present monitoring well locations on Figure 5, Appendix C.** N/A

**2. Was groundwater discovered in locations other than wells (e.g., tank excavations)? No**

- a) **At what locations (other than in wells) was groundwater discovered?** N/A
  - b) **Identify the locations where groundwater was discovered (other than in wells) on Figure 5, Appendix C or on Figure 2, Appendix C, as appropriate. If groundwater at these locations was sampled, provide the sample results on Table 4, Appendix B. If groundwater was not sampled at these locations, explain why not [2]** N/A
  - c) **If excavation dewatering was necessary, provide volume data, manifests, discharge permits, and compliance sampling results in Appendix H. All dewatering waste was pumped out and treated on site at the RFETS wastewater treatment facility. The treated water was discharged in accordance with the site's NPDES permit.**
- 3. Were groundwater samples collected according to procedures filed with the OIS as part of the Listed Consultant program? N/A According to the OIS Owner/Operator Guidance Document? N/A If neither, describe groundwater sample collection procedures. [3]**

**4. Has the extent of groundwater contamination been defined to concentrations below the MCLs? N/A If no, why not? [2]**

**I. QUALITY ASSURANCE/QUALITY CONTROL****1. Sampling Handling**

- a) **Was all decontamination performed during this investigation in accordance with the QA/QC filed with the OIS as part of Listed Consultant program? No**
- b) **Was all decontamination performed during this investigation in accordance with the QA/QC as described in Owner/Operator guidance document? Yes**

c) If the answer to both of the above is no, complete the following table.

Equipment	Decontamination Method
Sampling equipment	Disposable - one time use and discarded
Trackhoe	Brought to decon pad - bucket was high-pressure
Front-end loader	Brought to decon pad - bucket was high-pressure

2. Provide all information regarding sample handling and shipping as instructed in Appendix D.

## J. GEOLOGY AND HYDROGEOLOGY

1. Regional Geology -within 1/2 mile (This information is required if minimal site specific data is available. If the site geology has been characterized, regional data should only be obtained, as necessary, to supplement site specific data).

a) What is the lithology and stratigraphy of the unsaturated and uppermost saturated intervals?

Surficial material consists of Quaternary-age alluvial fan deposits of the Rocky Flats Alluvium, colluvial deposits, alluvial deposits of the valley-fill alluvium, and artificial fill. The surficial deposits are part of the upper hydrostratigraphic unit. The Rocky Flats Alluvium is composed of reddish-brown to yellowish-brown, well-graded, coarse gravel in a clayey-sand matrix.

The area impacted by this release was confined to a lined tank vault made up of artificial backfill material used during vault construction. No groundwater was encountered during the remedial activities.

b) Describe any features that may affect regional groundwater flow. None

c) What is the source of the information listed above? Integrated Monitoring Plan for Groundwater

2. Site Geology (Using the data collected during excavation activities and the drilling logs located in Appendix E answer the following questions. If complex geology exists at the site, which a cross-section would help to illustrate, include it in Appendix E with the borings logs).

a) What is the lithology and stratigraphy of the unsaturated and uppermost saturated intervals? See Above - Question 1.A

b) Describe any features at the site which could affect groundwater flow such as the slope of the uppermost bedrock unit? N/A

3. Regional Hydrogeology (within 1/2 mile) (This information is required if groundwater was not encountered during the site characterization. If groundwater was encountered, regional data should only be obtained, as necessary, to supplement site specific data).

- a) What is the average depth to groundwater? 4-8 feet depending on the water table, time of year and location at the site.
- b) What is the average thickness of the uppermost saturated interval? ?
- c) What is the regional groundwater flow direction? West to East
- d) Is there evidence that the flow direction may vary? No
- d) What is the source of the information? Integrated Monitoring Plan for Groundwater

#### 4. Site Hydrogeology

- a) What is the average depth to groundwater? Above
- b) What is the average thickness of the uppermost saturated interval? Above
- c) What is the groundwater flow direction? Above
  - i. If there is evidence that flow direction varies, include groundwater elevation maps indicating the varying flow directions (Figure 6, Appendix C). N/A
  - ii. What is the suspected or known reason for this variation? [2]
  - iii. What is the most prevalent flow direction? [1] West to East
- d) Complete the following table of aquifer parameters. N/A

Parameter	Value	How Was This Value Estimated? (Include Identification Numbers of Wells Tested)
Hydraulic Gradient		
Effective Porosity*		
Hydraulic Conductivity*		
Groundwater Flow Velocity		

\*May be estimated based on soil types during Tier 1 only

#### K. POINTS OF EXPOSURE

##### 1. Property Boundary

- a) What is the distance from the source of contamination to the nearest downgradient property boundary? >10,000 feet
- b) Provide the location of all site property boundaries on Figure 7, Appendix C.  
See Figure 1, Appendix C

##### 2. Surficial Soils

- a) Is there reason to suspect that persons will come into contact with surficial soils containing contaminant concentrations not protective of exposure through dermal contact, inhalation, or ingestion? No

- b) If yes, what is the distance from the source to the nearest surficial soils that persons may come into contact with?
- c) Indicate the location of all impacted surficial soils that persons may come into contact with on Figure 7, Appendix C. All impacted soils have been removed.

### 3. Utilities

- a) Are there utilities that could potentially be impacted by the release? No
- b) Complete the information concerning all utilities both on-site and off-site on the table below and provide utility locations on Figure 7, Appendix C.

Utility	Depth to Water	Depth to Utility	Impacted (y/n)	Potential to be Impacted (y/n)
Natural Gas Line			N	
Water Line			N	
Sanitary Sewer Line			N	
Storm Sewer Line			N	
Subsurface Power Line			N	
Communication Conduit			N	
Other				

- c) What is the distance from the source to the nearest impacted or potentially impacted utility? Utility lines (nitrogen, electrical, sewer) are located ~ 50" to the West. As previously stated, all materials impacted by this release have been removed.

### 4. Structures (excludes structures that house a business which dispenses petroleum products as part of normal operations).

- a) Are there structures that have been impacted by vapor migration from contaminated groundwater or soils? No
- b) Are there structures that have the potential to be impacted by vapor migration from contaminated groundwater or soils? No
- c) Present all structures, including those that have been impacted or have the potential to be impacted by vapor migration from either contaminated groundwater or soil on Figure 7, Appendix C. N/A
- d) What is the distance from the source to the nearest structure that has been impacted or has the potential to be impacted by vapor migration from contaminated groundwater or soils? N/A

**5. Groundwater Wells (excluding monitoring wells)**

a) List the location and uses of all groundwater wells located within ½ mile of the site. Include this information on Table 6, Appendix B. Present the location of the wells on a U.S.G.S. 7.5' Quadrangle Topographic map (Figure 8, Appendix C). N/A

b) How many groundwater wells are located downgradient and within ½ mile of the site? N/A

c) Is there a producing groundwater well whose radius of influence could affect groundwater flow at the site? No

d) What is the distance from the source to the nearest downgradient groundwater well? ~ 60' - these groundwater wells have been closed.

**6. Surface Water/Sensitive Environments**

a) Identify the location of all surface water features (lakes, streams, wetlands, etc.) located within ½ mile of the site on Figure 8, Appendix C. See Figure 1 of Appendix C

b) What is the distance from the source to the nearest downgradient surface water feature? ~3400'

**L. EXPOSURE PATHWAYS**

a) Complete the Exposure Pathway Screening Criteria Table

Exposure Pathway Screening Criteria - Bases for Eliminating Pathways	Y	N
Groundwater (Ingestion): No groundwater impacted	N/A	
--Impacted groundwater concentrations are below MCLs, or	0	
--Impacted water-bearing unit is designated as "non-usable" by the CWQCC, or	0	
--Groundwater plume is stable or diminishing within the property boundary (as demonstrated by four quarters of monitoring), and	0	
--There is no impact to a water supply well, (active or inactive), and		
--Dissolved oxygen concentrations are higher outside of the defined plume, and		
--Groundwater flow velocity is <50 ft/year, and		
--Transport modeling results are consistent with site observations.		
Groundwater (Enclosed Space Vapors): No groundwater impacted		
--Impacted groundwater concentrations are below MCLs, or	0	
--No existing structure is within the influence of the contamination, or	0	
--There is an existing structure within the influence of the contamination, and the structure houses a business which dispenses petroleum products as part of its operation.	0	
Surficial Soils (Ingestion, Ambient Vapors, Particulates, Dermal Contact):		
--Impacted soils concentrations below Tier 1 limits, or	0	
--Impacted soils have been removed from the site.	0	
Subsurface Soils (Enclosed Space Vapors):		
--Impacted soils are below Tier 1 limits, or	0	
--No existing structure is within the influence of the contamination.	0	

Exposure Pathway Screening Criteria - Bases for Eliminating Pathways	Y	N
-There is an existing structure within the influence of the contamination, and the structure houses a business which dispenses petroleum products as part of its operation.	N/A	
Subsurface Soils (Leaching to Groundwater):	N/A	
-Impacted soils are below Tier 1 limits.	u	

- b) Do the responses to the Exposure Pathway Screening Criteria Table indicate that any pathways may be eliminated from further consideration? Yes
- c) Are there any conditions not included in the table that may result in the elimination of any additional pathways? No
- d) If so, identify the pathway and conditions here. Any pathway elimination not specified in the table is subject to OIS approval. N/A
- e) For all pathways that may be eliminated, attach any supporting documentation (e.g., documentation of a "non-useable" designation by the CWQCC) in Appendix H.
- f) What are the completed exposure pathways?
- Groundwater (Ingestion) Yes
  - Groundwater (Enclosed Space Vapors) Yes
  - Surficial Soils (Ingestion, Ambient Vapors, Particulates, Dermal Contact) Yes
  - Subsurface Soils (Enclosed Space Vapors) Yes
  - Subsurface Soils (Leaching to Groundwater) Yes

#### M. LAND USE

- All sites are considered under the residential land use classification unless the industrial classification is requested and approved by the OIS. Is an industrial classification being requested for this site? No
  - If yes, is the property and any currently or potentially impacted property currently zoned Industrial? N/A
  - If yes, has the OIS been added to the list of parties to be notified of any application for rezoning? N/A
  - If yes, include official documentation of the addition of the OIS to this list (this documentation must indicate that the OIS will remain on the list until the OIS requests to be removed from the list). Include this documentation in Appendix H.

**N. RISK BASED SCREENING LEVEL (RBSL) SELECTION**

1. Complete the following table to determine the appropriate RBSL(s) for the site. Refer to the OIS Storage Tank Regulations (7 C.C.R. 1101-14, Table 5-1) for the Tier 1 RBSL look-up table. If a "y" has been indicated in the Pathway Completed column, the RBSL and Source Concentration columns should be completed for every COC that exceeds the Tier 1 RBSL in Table 5-1. Consider the Land Use designation for the site to determine the correct RBSL for each completed pathway.

Exposure Pathway	Pathway Completed (y/n)	Chemical of Concern (COC)	RBSL	Source Concentration
Surficial Soil (mg/Kg)	Y	Benzene	4.1	< MDL
		Toluene	4100	< MDL
		Ethylbenzene	2100	0.006
		Xylene	36000	0.02
Soil Leaching to groundwater (mg/Kg)	N	Benzene		
		Toluene		
		Ethylbenzene		
		Xylene		
Soil Vapor to Indoor Air (ug/m <sup>3</sup> )	N	Benzene		
		Toluene		
		Ethylbenzene		
		Xylene		
Groundwater to Indoor air inhalation (mg/l)	N	Benzene		
		Toluene		
		Ethylbenzene		
		Xylene		
Groundwater Ingestion (mg/l)	N	Benzene		
		Toluene		
		Ethylbenzene		
		Xylene		

**2. RBSLs per media**

- a) Were both the Surficial Soil and Soil Leaching to Groundwater exposure pathways complete? No If yes, the RBSLs for soil will be those for the Soil Leaching to Groundwater exposure pathway.
- b) Were both the Groundwater to Indoor Air Inhalation and Groundwater Ingestion pathways complete? No If yes, the RBSLs for groundwater will be those for the Groundwater Ingestion exposure pathway.

**O. TOTAL PETROLEUM HYDROCARBONS (TPH)/POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)****1. Source concentrations**

- a) Are all of the concentrations of the chemicals of concern (benzene, toluene, ethylbenzene, xylenes) associated with this release below the RBSLs or SS-RBSLs? Yes
- b) Does the TPH concentration exceed the threshold value of 500 mg/Kg? No

**2. PAH Evaluation - If both answers to question #1 above are yes, then a soil sample collected from the area believed to be the most contaminated must be analyzed for the 16 priority PAHs. For the following questions refer to the Tier 1 RBSL table for PAHs in the Owner/Operator Guidance Document. N/A****a) If the surficial soil pathway is complete at this site answer the following questions:**

- i. Do site PAH concentrations exceed the Tier 1 RBSLs for any compounds for the surficial soil pathway? N/A
- ii. If yes, list the compounds that exceed the RBSLs and the concentrations at which they remain on the site.

**b) If the subsurface soil leaching to groundwater pathway is complete at this site answer the following questions: N/A**

- i. Do site PAH concentrations exceed the Tier 1 RBSLs for benz(a)-anthracene, dibenz(a,H)-anthracene or naphthalene compounds for the subsurface soil leaching to groundwater pathway? N/A
- ii. If yes, list the compounds at the site that exceed the RBSLs for the above compounds and the concentrations at which they remain on the site.
- iii. Do PAH levels exceed the Tier 1 RBSLs for the 13 chemicals not specified in "i" above for the surficial soil pathway? N/A
- iv. If yes, list the compounds at the site that exceed the RBSLs for the above compounds and the concentrations at which they remain on the site.

**c) If the groundwater volatilizing to indoor air pathway is complete at this site answer the following questions:**

- i. Do site naphthalene concentrations exceed the Tier 1 RBSL for the groundwater volatilizing to indoor air pathway? N/A
- ii. If yes, what is the concentration of naphthalene in groundwater remaining on the site?

d) If the groundwater ingestion pathway is complete at this site answer the following questions:

- i. Do site benzo(a)-pyrene concentrations exceed the Tier 1 RBSL for the groundwater ingestion pathway? N/A
- ii. If yes, what is the concentration of benzo(a)-pyrene in groundwater remaining on the site?

P. TIER 1A

1. Has a Tier 1A evaluation been performed for this site? No
2. Was there reason to believe, based on site conditions, that the collection of site specific information would lead to a significantly different cleanup goal? No
3. Were site specific data collected to be used as input parameters into the Tier 1A Model? (For a Tier 1A evaluation, site specific data must be collected from the site, or calculated from data collected from the site, as outlined in the Owner/Operator Guidance Document). N/A
4. If site specific input parameters were used to create Tier 1A SS-RBSLs, list those parameters on the following table and indicate the source of the data. Include locations where data are collected on the appropriate figure.

Parameter	Value	How Was This Value Determined? (Include Identification Numbers of Wells Tested, Location of Borings, etc.)
Depth to subsurface soil source		
Depth to groundwater		
Thickness of the capillary fringe		
Thickness of the unsaturated zone		
Length of source		
Width of source		
Hydraulic conductivity		
Gradient		
Fraction of organic carbon		
Total porosity		
Unsaturated zone water content		
Unsaturated zone air content		
Infiltration rate		
Soil bulk density		
Distance to point of exposure		
Effective porosity		

5. **Attach the Tier 1A SS-RBSL table generated by inputting site specific data collected above into the Tier 1A Model (located on the OIS webpage)**

## **Q. RECOMMENDATIONS**

1. **Are all source concentrations remaining at the site below RBSLs in soil and MCLs in groundwater? Yes for soils; no impact to groundwater If yes, you may request no further action. A No Further Action Request designation is being requested.**
2. **Are source concentrations remaining at the site above RBSLs in soil and/or MCLs in groundwater? No If yes, do you recommend remediation to Tier 1 levels? N/A What method(s) of remediation will you be evaluating in your corrective action plan (CAP)? N/A**
3. **Have you performed a Tier 1A evaluation? No Are all source concentrations remaining at the site below the SS-RBSLs generated in the Tier 1A evaluation? N/A If yes, you may request a no further action.**
4. **Have you performed a Tier 1A evaluation? No Are source concentrations remaining at the site above the SS-RBSLs generated in the Tier 1A evaluation? N/A If yes, do you recommend remediation to Tier 1A levels, or Tier 1 levels? N/A What method(s) of remediation will you be evaluating in your CAP? N/A**
5. **Have you performed a Tier 1A evaluation? No Are source concentrations remaining at the site above the SS-RBSLs generated in the Tier 1A evaluation? N/A If yes, do you recommend proceeding to a Tier 2 evaluation? N/A What method(s) of remediation will you be evaluating in your CAP to cleanup to Tier 2 should site specific target levels be exceeded? N/A**

## APPENDIX A - INSTRUCTIONS

### 1. TABLES (Appendix B)

#### Table 1 - Summary of Organic Vapor Meter Readings

This table lists the results of field screening of soil samples with an Organic Vapor Meter (OVM). Information presented shall include sample location, OVM reading, sample depth (ft bgs), and an indication of whether the sample was analyzed at a laboratory.

#### Table 2 - Summary of Soil Laboratory Results

This table lists the results obtained from laboratory testing of soil samples. Information presented shall include sample designation, sample collection date, sample depth (ft bgs), and analyte concentrations. If any analyte was detected which is not listed on this table, answer Ayes in the AOther column and attach the laboratory analytical reports for those analytes. Concentrations that exceed the Tier 1 RBSL for the soil leaching to groundwater pathway must be entered in bold type face. Also include on Table 2 the rationale for sample collection, using the codes listed in the footnote.

TVPH = Total Volatile Petroleum Hydrocarbons

TEPH = Total Extractable Petroleum Hydrocarbons

TPH = Total Petroleum Hydrocarbons

#### Table 2a - Summary of PAH Soil Laboratory Results

If a sample was analyzed for the priority PAHs the results obtained from the laboratory testing should be listed on this table. Information presented shall include sample designation, sample collection date, sample depth (ft bgs), and analyte concentrations in mg/Kg. This analysis will only be required when the BTEX constituents are below site cleanup goals and TPH concentrations exceed 500mg/Kg.

**Table 3 - Summary of Vapor Laboratory Results**

This table lists the results obtained from laboratory testing of vapor samples. Information presented shall include sample designation, sample collection date, sample depth (ft bgs), and analyte concentrations. If any analyte was detected which is not listed on this table, answer Ayes= in the AOther= column and attach the laboratory analytical reports for those analytes. Also included on this table is the rationale for sample collection.

**Table 4 - Summary of Groundwater Laboratory Results**

This table must be included when water samples are collected and shall present the results obtained from laboratory testing of water samples. Information presented shall include sample designation, sample collection date, sample depth (depth below grade level when collected from an excavation), analyte concentrations, and analytical methods. If any analyte was detected which is not listed on this table, answer Ayes= in the AOther= column and attach the laboratory analytical reports for those analytes. Concentrations that exceed Colorado groundwater standards (MCLs) shall be presented in boldface type. Sample locations must be illustrated on Figure 5.

**Table 5 - Groundwater Elevation Table**

This table shall include the surveyed elevation of each well measured during this investigation, the date of the measurement, depth to water, depth to product, product thickness, product elevation, and the corrected elevation of the groundwater.

**Table 6 - Summary of Water Well Information**

This table shall include the results of a water well survey for wells located within 2 mile of the site. Information presented shall include the well number, geographic location (cadastral coordinates), approximate distance from site (if known), approximate compass direction from site (if known), use of each well, well depth, water level, and pumping rate. Wells down gradient of the site shall be presented in boldface type.

**2. FIGURES (Appendix C)**

Requirements common to all maps include the following: title block with figure number, site name, site address, date, scale, north arrow, and a legend. Distinct symbols should be used to differentiate varying sampling and analytical techniques (e.g. = Monitoring Well, □ = Borehole, □ = Geoprobe Point, □ = OVM locations, Φ = laboratory data). All maps must be created to scale.

**Figure 1 - Site Map**

This map shall illustrate the important features at the site and the area immediately adjacent to the site. Include locations of property boundaries, fences, streets (with names), site buildings and adjacent structures, USTs/ASTs, piping runs and dispensers, and type of ground cover.

**Figure 2 - Excavation Sample Location Map**

**This map shall illustrate the former locations of the tanks, and the sampling locations from within each tank excavation. For each of these sampling locations include a text box with sample depth and laboratory analytical results. Also include on the map the location of soils stockpiled. Clearly identify the dimensions of the excavation areas. Include features from Figure 1 as necessary for reference (e.g., major structures).**

**Figure 2a - OVM Screening Locations**

**This map shall illustrate locations of samples collected for soil screening (as indicated in Table 2), which were not submitted to the laboratory for analysis. Include features from Figure 1 as necessary for reference (e.g., major structures, excavations, etc.). If the screened soils were submitted for analysis the location of the sample should not be identified on this figure, but should be placed on either Figure 2 or 3.**

**Figure 3 - Soil Sample Location Map**

**This map shall illustrate the sampling locations at the site (outside of the tank excavation(s)). Include features from Figure 1 as necessary for reference (e.g., major structures, excavations, etc.) For each of these sampling locations include a text box with sample depth and laboratory analytical results.**

**Figure 4 - Vapor Sample Location Map**

**This map shall illustrate the sampling locations at the site. Include features from Figure 1 as necessary for reference (e.g. major structures, excavations, etc.). For each of these sampling locations include a text box with sample depth and laboratory analytical results.**

**Figure 5 - Groundwater Sample Location Map**

**This map shall illustrate the groundwater sampling locations at the site. Include features from Figure 1 as necessary for reference (e.g., major structures, excavations, etc.). For each of these sampling locations include a text box with laboratory analytical results.**

**Figure 6 - Groundwater Elevation Map**

**This map shall illustrate the locations at which groundwater levels have been measured. Figure 1 may be used as a base map. Include the date of the measurement (separate maps must be created for individual measuring events) and the relative groundwater elevation. Provide groundwater elevation contours and an indication of the groundwater flow direction.**

**Figure 7 – POE Location Map**

This figure will identify each property in the vicinity of the site which could potentially be affected by the release. The properties will be illustrated by land use (e.g., single family residential, vacant land, retail, dry cleaning, gas station, etc.). This figure will also identify all potential POEs (property boundaries, surficial soils, subsurface utilities, groundwater wells and surface water features/sensitive environments).

**Figure 8 – Area Surface Water, Groundwater, Topographical Map**

This map is used to provide regional topographic and POE information. Include a portion of a U.S.G.S. 7 1/2' Quadrangle Topographic Map or equivalent, measuring a minimum of six inches by six inches with the site located in the middle of the six inch by six inch section. The map shall include a scale (approximately 1" = 2,000'), distinct site location marker, and geographic contour intervals. Clearly identify surface water features and water wells (excluding monitoring wells) within 1/2 mile radius of the site. Provide a text box with the associated permit number (as indicated in Table 6) of each water well location.

**3. LABORATORY DOCUMENTATION (Appendix D)**

Chain of Custody forms which accompany samples for laboratory analyses are required to contain the following information: site name and address, sample number, date and time sampled, matrix description (e.g. soil, water), container size, type and decontamination status (e.g. 40 ml laboratory decontaminated amber glass VOA vial), preservation method (e.g. HCl 5%, 4E C), date and method of transport to laboratory (e.g. hand delivered, Fed Ex etc.), analyte and methodology of analyses requested (e.g. Total Extractable Petroleum Hydrocarbons (TEPH) by EPA Method 8015 Modified), and the name and signature of the person collecting the samples. Also attach all laboratory reports, and laboratory quality assurance/quality control reports.

**4. BOREHOLE LITHOLOGIC LOGS AND WELL COMPLETION (Appendix E)**

Boring logs must include the site name and address, boring number, date completed, surface elevation, depth, borehole diameter, initial and static water levels (if available), drilling method, sampling method, lithologic graphic to scale, an indication of the intervals from which samples were obtained, results of VOC screening, and a geologic description and/or Unified Soil Classification System (USCS) class of each rock or soil type encountered including any staining or petroleum odors.

The following additional information should be included with the lithologic logs if a well has been completed. Include the total depth of the well, the casing elevation, the diameter of the well casing, the well casing material (e.g. PVC, stainless steel), the length and depth of the screened interval, the size and type of perforations of the screen (e.g. 0.010" milled slots), the type of filter pack material placed in the well (e.g. 10-20 mesh washed silica sand), the type of annular seal (e.g. 1/2" bentonite pellets), the type of grout used to fill the remaining annular space (e.g. Portland cement 5% bentonite), the type of well casing cap, the method of securing the well casing cap, and the type of protective surface casing. Also included should be a well completion graphic to scale which indicates the depth to the top

of the filter pack, the depth to the top of the annular seal, and the location of the screened interval.

Also included in Appendix E should be any cross-sections completed to illustrate site conditions.

#### **5. WASTE DISPOSAL MANIFESTS (Appendix F)**

Attach copies of all manifests provided by transporters, landfills, treatment facilities, etc.

#### **6. SITE CLASSIFICATION CHECKLIST (Appendix G)**

To complete the Site Classification Checklist, place a check in the Threat (T) box if the situation, designated by sub-class (SUB), exists at the site. If the threat does not exist, check the N box. The U box should only have been checked when the Site Classification Checklist was submitted with the Site Summary Form. Upon completion of this report all conditions which exist at the site should be known. Check the Response (R) box if an appropriate response action has been completed for the existing condition at the site. If the response action has been completed and the threat no longer exists, the site classification will be the classification of the next most highly listed threat. The site will be classified by the first table where a threat box has been checked and an appropriate response has not been completed. However, complete the entire form and perform appropriate response actions for each condition which exists at the site. Complete response actions in order of highest priority (1 being the highest).

#### **7. SUPPORTING DOCUMENTATION (Appendix H)**

Attach all supporting documentation as required (e.g., permits for initial response and abatement activities, industrial zoning designation, water quality designation, etc.).

Site Street Address RFETS – 10808 Highway 93

City Golden

## **APPENDIX B - TABLES**

**TABLE 1- SUMMARY OF ORGANIC VAPOR METER READINGS**

<b>Sample Location I.D.</b>	<b>Date</b>	<b>Sample Depth (ft)</b>	<b>OVM Reading (ppm)</b>	<b>Laboratory Analyzed (y/n)</b>
BW41-005	3/15/05	8	0	Y
BW40-038	3/15/05	8	0	Y
BW40-039	3/15/05	8	0	Y
BW40-040	3/15/05	8	0	Y
BW40-041	3/15/05	15	0	Y
AA83-201	3/15/05	8	0	N
BW41-005	3/16/05	8	0	Y

N/D = Not Detected

N/A = Not Analyzed

**TABLE 2 - SUMMARY OF SOIL LABORATORY RESULTS**

Sample Number	Date	Sample Depth (ft)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-Benzene (mg/Kg)	Xylenes (mg/Kg)	MTBE (mg/Kg)	TVPH (mg/Kg)	TEPH (mg/Kg)	TPH (mg/Kg)	Oil & Grease (mg/Kg)	Other Analytes? * (y/n)	Rationale**
BW40-038A	3/15/05	8'	ND	ND	ND	ND	N/A	N/A	N/A	190	N/A	Y	PE
BW40-039A	3/15/05	8'	ND	ND	ND	ND	N/A	N/A	N/A	45.6	N/A	Y	PE
BW40-040A	3/15/05	8'	ND	ND	ND	ND	N/A	N/A	N/A	59.3	N/A	Y	PE
BW40-041A	3/15/05	15"	ND	ND	ND	ND	N/A	N/A	N/A	36.5	N/A	Y	PE
BW41-005A	3/15/05	8'	ND	ND	ND	ND	N/A	N/A	N/A	36.7	N/A	Y	PE

Identify any sample results which exceed Tier 1 RBSLs for soil leaching to groundwater pathway or 500mg/Kg TPH by presenting those results in bold typeface.

N/D = Less than the stated laboratory detection limit

N/A = Not Analyzed

\* If ☐ yes ☐ no, list other analytes detected in a separate table

\*\*Rationale - Release confirmation (RC), In plume (IP), Upgradient (UG), Downgradient (DG), Point of Compliance (POC), Post excavation (PE), Define extent (DE), Waste characterization (WC)

**TABLE 2a - SUMMARY OF SOIL PAH LABORATORY RESULTS**

Sample Collection Date	Compound	Concentration mg/Kg	Depth sample collected (ft)	Sample # of TPH Sample	TPH Concentration in Original Sample mg/Kg
N/A	Acenaphthene				
N/A	Acenaphthylene				
N/A	Anthracene				
N/A	Benzo(a)-anthracene				
N/A	Benzo(a)-pyrene				
N/A	Benzo(b)-fluoranthene				
N/A	Benzo(g,h,i)-perylene				
N/A	Benzo(k)-fluoranthene				
N/A	Chrysene				
N/A	Dibenzo(a,h)-anthracene				
N/A	Fluoranthene				
N/A	Fluorene				
N/A	Indeno(1,2,3-CD)-pyrene				
N/A	Naphthalene				
N/A	Phenanthrene				
N/A	Pyrene				

Identify any sample results which exceed Tier 1 RBSLs for the surficial soil pathway by presenting those results in bold typeface. Responses which are common to all compounds (e.g., Sample collection date) only need to be completed for the first compound. Repeat table if more than one sample is analyzed for PAHs

N/D = Less than the stated laboratory detection limit

N/A = Not Analyze

**TABLE 3 - SUMMARY OF VAPOR LABORATORY RESULTS**

Sample Number	Date	Sample Depth (ft)	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethyl-Benzene ( $\mu\text{g}/\text{m}^3$ )	Xylenes ( $\mu\text{g}/\text{m}^3$ )	MTBE ( $\mu\text{g}/\text{m}^3$ )	TVPH ( $\mu\text{g}/\text{m}^3$ )	TEPH ( $\mu\text{g}/\text{m}^3$ )	TPH ( $\mu\text{g}/\text{m}^3$ )	Oil & Grease ( $\mu\text{g}/\text{m}^3$ )	Other Analytes? • (y/n)	Rationale**
N/A													

N/D = Less than the stated laboratory detection limit

N/A = Not Analyzed

• If ☐yes☐, list other analytes detected in a separate table

\*\*Rationale – Assist in defining extent (DE), Identify threats to points of exposure (POE)

**TABLE 4 - SUMMARY OF GROUNDWATER LABORATORY RESULTS**

Sample Number	Date	Sample Depth (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-Benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	TVPH (mg/l)	TEPH (mg/l)	TPH (mg/l)	Oil & Grease (mg/l)	Other Analytes?*(y/n)	Rationale **
N/A													

Identify any sample results which exceed Colorado Groundwater Standards (MCLs) by presenting those results in bold typeface.

N/D = Less than the stated laboratory detection limit

N/A = Not Analyzed

\* If ☐ yes ☐ no, list other analytes detected in a separate table

\*\*Rationale - Release confirmation (RC), In plume (IP), Upgradient (UG), Downgradient (DG), Point of Compliance (POC), Define extent (DE), Waste characterization (WC)

[illegible]

City Golden

### TABLE 6 - SUMMARY OF WATER WELL INFORMATION

[illegible]

\*Information from the Colorado Division of Water Resources

Indicate any wells which appear to be downgradient of the site in bold typeface.

Uses: 0 = Other Use, OM = Other Use (Monitoring Well), 1 = Agricultural, 3 = Commercial Use, 8 = Domestic Use, 9 = Livestock Use

## APPENDIX C - FIGURES

U.S. DEPARTMENT OF ENERGY  
Rocky Flats Environmental  
Technology Site  
Golden, Colorado

BUILDING 331  
SITE LOCATION MAP

FIGURE 1

from: USGS 7.5' QUAD, LOUISVILLE, COLORADO

SCALE: 1" = 2000'

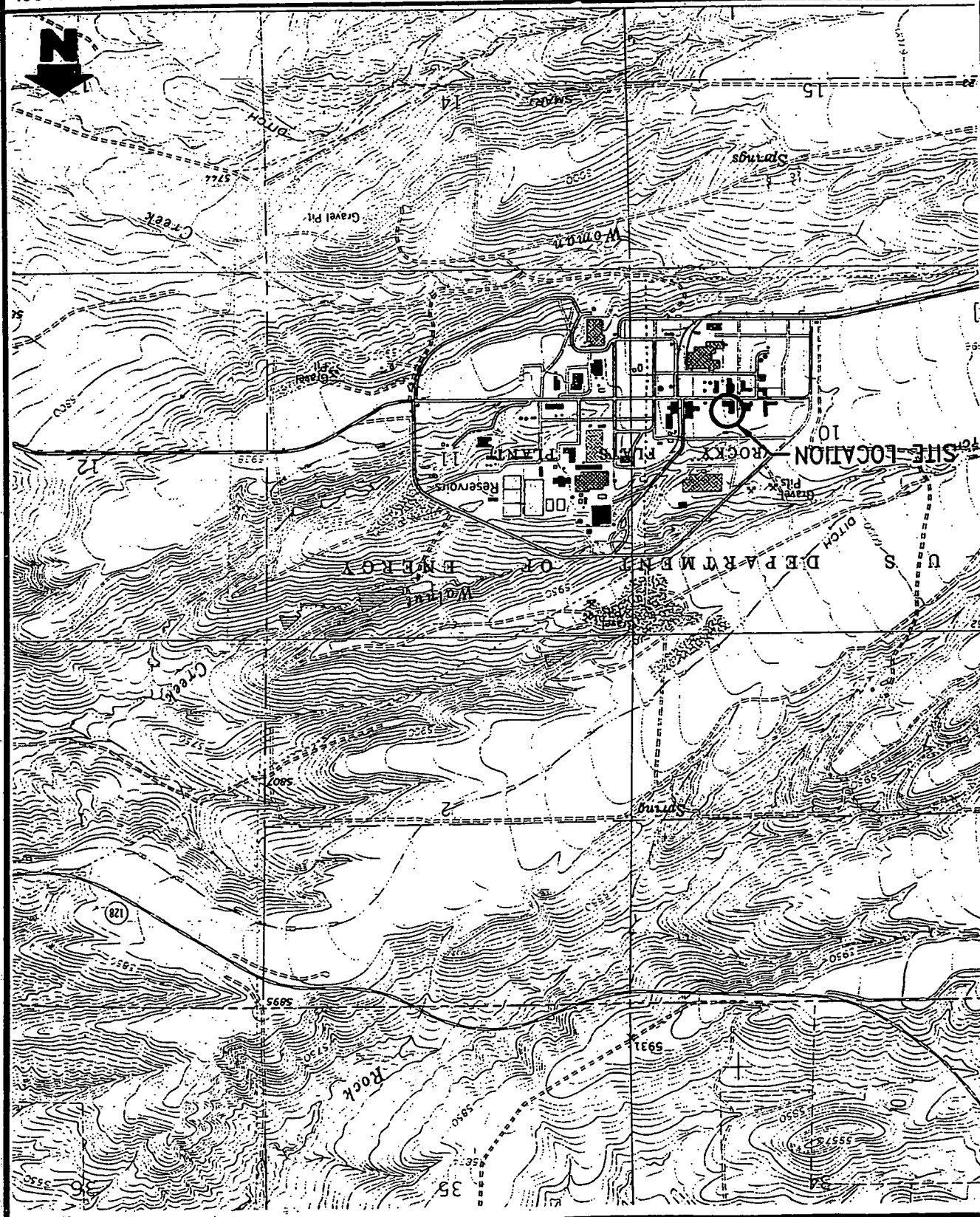
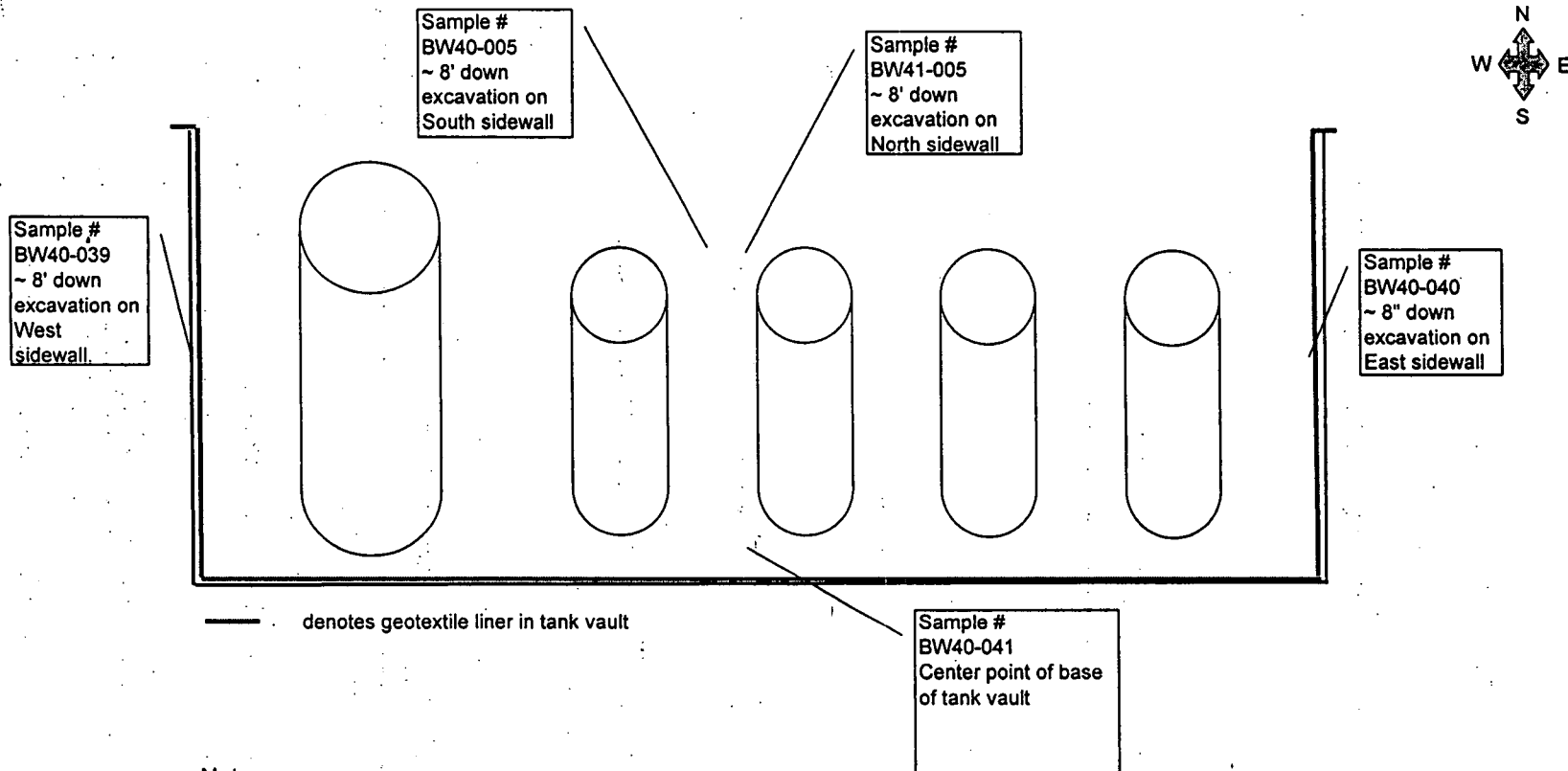


Figure 1  
Appendix C

APPENDIX C  
FIGURE 2

EXCAVATION #1  
SIDE VIEW OF TANK VAULT EXCAVATION



Notes :

1. Five re-enforced fiberglass tanks were removed from tank vault excavation
2. Tank Vault demensions = 75' long x 60' wide x 15.5" deep
3. Samples collected of native soils after remediation activities completed and liner removed
4. Although five tanks were removed, the sample number and location were determined as if one remedial activity.

## **APPENDIX D - LABORATORY DOCUMENTATION**



# Revised Report

## Volatiles Analysis

### COVER PAGE

#### PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE TO URS SAMPLE LABORATORY IDs

WorkOrder: 0503078

Subcontract 68FKH0225800

COC Number	Project Sample ID Number	Customer Number	Matrix	Date Received	URS Sample ID Number	Line Item Code
05F0470#001	05F0470-001.001	BW40-038A <i>SOUTH</i>	SOIL	3/15/2005	0503078-001A	EVO-A-002
05F0470#001	05F0470-002.001	BW40-039A <i>WEST</i>	SOIL	3/15/2005	0503078-002A	EVO-A-002
05F0470#001	05F0470-003.001	BW40-040A <i>EAST</i>	SOIL	3/15/2005	0503078-003A	EVO-A-002
05F0470#001	05F0470-004.001	BW40-041A <i>Center/Bottom</i>	SOIL	3/15/2005	0503078-004A	EVO-A-002
05F0470#001	05F0470-005.001	BW41-005A <i>NORTH</i>	SOIL	3/15/2005	0503078-005A	EVO-A-002
05F0470#001	05F0470-006.001	QCFB-12116	Water Quality Control Matrix	3/15/2005	0503078-006A	EVO-A-001

This report has been revised to report 1,1,1,2-Tetrachloroethane in the LCS for analytical batch MS1 VOA\_050315A. Pages 31 through 33 have been replaced.

#### Certification Statement

"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

Steven L. Baca

Signature

Wednesday, March 16, 2005 14:35:30

Date

Laboratory/Data Management Lead

Title

## **Table of Contents**

### **RIN 05F0470**

<b>Cover Page</b>	<b>1</b>
<b>Table of Contents</b>	<b>2</b>
<b>Chain of Custody</b>	<b>3</b>
<b>Executive Summary</b>	<b>6</b>
<b>Report Narrative</b>	<b>8</b>
<b>Analytical Results</b>	<b>10</b>
<b>Quality Control Results Summary</b>	<b>22</b>
<b>Supplemental Data</b>	<b>40</b>

0907078

<b>Sample Originator</b> (Organization or Program/Project Name) <b>URS ER</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>										<b>C.O.C. #</b> 05F0470#001 Page 1 of 2	
<b>Sampler(s)</b> BROWN, MARK <b>Signature:</b> <u>Mark Brown</u> <b>Date:</b> 3/15/05		<b>Contact/Requester</b> MATTSON, ERICK								<b>Telephone No.</b> (303) 994-3259			
<b>RIN</b> 05F0470		<b>Sampling Origin</b> 300-2 (Bldg 331)								<b>Purchase Order/Charge Code</b> EHD331TK			
<b>Project Title</b> ER Project		<b>Logbook No.</b> CHAR-645								<b>Ice Chest No.</b> URS #1		<b>Temp.</b> N/A	
<b>To (Lab):</b> URS		<b>Method of Shipment</b> HAND DELIVER								<b>Bill of Lading/Air Bill No.</b> N/A			
<b>Protocol</b> IASAP Addenda 2002		<b>Related COC (if any)</b> N/A								<b>PRE</b> CHAD BLAKE-01/22/02			
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> Are acid-preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or <b>NO</b> Are other known hazardous substances present? YES or <b>NO</b> None										<b>SCREENING REQUIRED</b> <input type="checkbox"/> N/A		<b>SPECIAL INSTRUCTIONS</b> N/A	
Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)			FI	Sample Analysis (LIC/(Method)/(TAT)/(Lab))			Preservative/Packing
05F0470-001.001	BW40-038A	SOLID	3/15/2005	13:30	BW40-038	125	G	ML	N	EVO-A-002(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-002.001	BW40-039A	SOLID	3/15/2005	13:25	BW40-039	125	G	ML	N	EVO-A-002(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-003.001	BW40-040A	SOLID	3/15/2005	13:30	BW40-040	125	G	ML	N	EVO-A-002(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-004.001	BW40-041A	SOLID	3/15/2005	13:20	BW40-041	125	G	ML	N	EVO-A-002(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-005.001	BW41-005A	SOLID	3/15/2005	13:20	BW41-005	125	G	ML	N	EVO-A-002(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-006.001	QCFB-12116	AQUEOUS	3/15/2005	13:45	Quality Control	40	G	ML	N	EVO-A-001(SW-846 8260)[24hrS](URS)			None 4 C w/zhs
05F0470-006.002	QCFB-12116	AQUEOUS	3/15/2005	13:45	Quality Control	40	G	ML	N	EVO-A-001(SW-846 8260)[24hrS](URS)			None 4 C w/zhs



# FORM 103-1

## Laboratory Sample Receipt Checklist

RIN# 05F0470

Work Order# 0503078

Date / Time of Sample Receipt: 3.15.05 1420

Cooler # 1

PRE received with samples?	YES [ ]	NO [ ]	N/A [✓]
RAM tag received with samples?	YES [ ]	NO [ ]	N/A [✓]
RAM tag info meets acceptance criteria?	YES [ ]	NO [ ]	N/A [✓]
All rad release information is accurate?	YES [✓]	NO [ ]	N/A [ ]
Cooler delivered leaking?	YES [ ]	NO [✓]	N/A [ ]
Any samples received broken / leaking?	YES [ ]	NO [✓]	N/A [ ]
Cooler contained blue-ice?	YES [✓]	NO [ ]	N/A [ ]
COC is signed as relinquished / received?	YES [✓]	NO [ ]	N/A [ ]
COC is complete and accurate?	YES [✓]	NO [ ]	N/A [ ]
COC agrees with bottle count?	YES [✓]	NO [ ]	N/A [ ]
COC agrees with sample labels?	YES [✓]	NO [ ]	N/A [ ]
Samples received in proper containers?	YES [✓]	NO [ ]	N/A [ ]
Sufficient sample volume for analysis?	YES [✓]	NO [ ]	N/A [ ]
Samples chemically preserved properly?	YES [ ]	NO [ ]	N/A [✓]
Custody seals on all sample containers?	YES [✓]	NO [ ]	N/A [ ]
VOA vials received with headspace?	YES [ ]	NO [✓]	N/A [ ]
Sample labels reviewed by 2nd person?	YES [✓]	NO [ ]	N/A [ ]
Samples placed in refrigerator after log-in?	YES [✓]	NO [ ]	N/A [ ]
Accuracy of login reviewed by 2nd person?	YES [✓]	NO [ ]	N/A [ ]

Sample Labels Reviewed by: [Signature]

Signature - Date / Time

Checklist Completed by: [Signature]

Signature - Date / Time

Sample Login Reviewed by: [Signature]

Signature - Date / Time

Checklist Reviewed by: [Signature]

Signature - Date / Time



## Executive Summary

Non-Radiological Detection Highlights - See Form I for Complete Analytical Suite

URS Work Order: 0503078

Page 1 of 2

Parameter	Result	Qual	Reporting Limit	Units	LIC
<b>05F0470-001.001</b>	<b>BW40-038A</b>	<b>BW40-038</b>	<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:30:00</b>
1,2,4-Trimethylbenzene	0.9	J	5.55	ug/kg-dry	EVO-A-002
Naphthalene	5.97	B	5.55	ug/kg-dry	EVO-A-002
Tetrachloroethene	2.4	J	5.55	ug/kg-dry	EVO-A-002
Percent Moisture	6.025		0	wt%	PMOIST
<b>05F0470-002.001</b>	<b>BW40-039A</b>	<b>BW40-039</b>	<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:25:00</b>
1,2,4-Trimethylbenzene	10.4		4.9	ug/kg-dry	EVO-A-002
1,3,5-Trimethylbenzene	4.6	J	4.9	ug/kg-dry	EVO-A-002
4-Isopropyltoluene	1.2	J	4.9	ug/kg-dry	EVO-A-002
n-Butylbenzene	2	J	4.9	ug/kg-dry	EVO-A-002
Naphthalene	12.8	B	4.9	ug/kg-dry	EVO-A-002
sec-Butylbenzene	1.3	J	4.9	ug/kg-dry	EVO-A-002
Tetrachloroethene	2.1	J	4.9	ug/kg-dry	EVO-A-002
Xylenes (Total)	4.1	J	9.81	ug/kg-dry	EVO-A-002
Percent Moisture	6.045		0	wt%	PMOIST
<b>05F0470-003.001</b>	<b>BW40-040A</b>	<b>BW40-040</b>	<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:30:00</b>
1,2,4-Trimethylbenzene	16.1		6.05	ug/kg-dry	EVO-A-002
1,3,5-Trimethylbenzene	6.93		6.05	ug/kg-dry	EVO-A-002
4-Isopropyltoluene	1.2	J	6.05	ug/kg-dry	EVO-A-002
Acetone	50	J	121	ug/kg-dry	EVO-A-002
Benzene	0.8	J	6.05	ug/kg-dry	EVO-A-002
Ethylbenzene	2.3	J	6.05	ug/kg-dry	EVO-A-002
n-Butylbenzene	2.2	J	6.05	ug/kg-dry	EVO-A-002
n-Propylbenzene	1.5	J	6.05	ug/kg-dry	EVO-A-002
Naphthalene	18.4	B	6.05	ug/kg-dry	EVO-A-002
sec-Butylbenzene	1.1	J	6.05	ug/kg-dry	EVO-A-002
Styrene	2.6	J	6.05	ug/kg-dry	EVO-A-002
Tetrachloroethene	2.1	J	6.05	ug/kg-dry	EVO-A-002
Toluene	6	J	6.05	ug/kg-dry	EVO-A-002
Xylenes (Total)	16.1		12.1	ug/kg-dry	EVO-A-002
Percent Moisture	12.79		0	wt%	PMOIST

### Qualifiers:

#### Organic

RL - Reporting Limit

DF - Dilution Factor

\* - Surrogate values outside of control limits

B - Analyte detected in the associated Method Blank > RL

E - Exceeds GC/MS Calibration Range

H - Analysis Performed Outside of Holding Time

J - Estimated - Analyte detected below quantitation limits

ND - Not Detected at the Reporting Limit

U - Not Detected at the Reporting Limit

#### Inorganic/Gamma Spectroscopy

\* - Duplicate analysis outside of control limits

B - Value less than RL, but >= MDL

H - Analysis Performed Outside of Holding Time

M - Target RL Not Achieved via gamma spectroscopy

N - Spike Recovery outside accepted recovery limits

U - Analyzed but not detected/Not detected above MDA via gamma spectroscopy

Parameter	Result	Qual	Reporting Limit	Units	LIC
<b>05F0470-004.001 BW40-041A</b>	<b>BW40-041</b>		<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:20:00</b>
1,2,4-Trimethylbenzene	44.3		5.05	ug/kg-dry	EVO-A-002
1,3,5-Trimethylbenzene	15.7		5.05	ug/kg-dry	EVO-A-002
4-Isopropyltoluene	5	J	5.05	ug/kg-dry	EVO-A-002
Benzene	0.87	J	5.05	ug/kg-dry	EVO-A-002
Ethylbenzene	3	J	5.05	ug/kg-dry	EVO-A-002
Isopropylbenzene	1.4	J	5.05	ug/kg-dry	EVO-A-002
n-Butylbenzene	9.37		5.05	ug/kg-dry	EVO-A-002
n-Propylbenzene	4.1	J	5.05	ug/kg-dry	EVO-A-002
Naphthalene	26.5	B	5.05	ug/kg-dry	EVO-A-002
sec-Butylbenzene	4.7	J	5.05	ug/kg-dry	EVO-A-002
Styrene	2.9	J	5.05	ug/kg-dry	EVO-A-002
Tetrachloroethene	1.2	J	5.05	ug/kg-dry	EVO-A-002
Toluene	4.6	J	5.05	ug/kg-dry	EVO-A-002
Xylenes (Total)	22.1		10.1	ug/kg-dry	EVO-A-002
Percent Moisture	8.299		0	wt%	PMOIST
<b>05F0470-005.001 BW41-005A</b>	<b>BW41-005</b>		<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:20:00</b>
1,2,4-Trimethylbenzene	21.7		4.83	ug/kg-dry	EVO-A-002
1,3,5-Trimethylbenzene	6.58		4.83	ug/kg-dry	EVO-A-002
4-Isopropyltoluene	3.1	J	4.83	ug/kg-dry	EVO-A-002
n-Butylbenzene	6.36		4.83	ug/kg-dry	EVO-A-002
n-Propylbenzene	1.4	J	4.83	ug/kg-dry	EVO-A-002
Naphthalene	25.3	B	4.83	ug/kg-dry	EVO-A-002
sec-Butylbenzene	2.9	J	4.83	ug/kg-dry	EVO-A-002
Tetrachloroethene	1.3	J	4.83	ug/kg-dry	EVO-A-002
Xylenes (Total)	1.8	J	9.66	ug/kg-dry	EVO-A-002
Percent Moisture	4.536		0	wt%	PMOIST
<b>05F0470-006.001 QCFB-12116</b>	<b>FB</b>		<b>300-2</b>	<b>B331 UST</b>	<b>3/15/2005 13:45:00</b>
Tetrachloroethene	0.99	J	5	ug/l	EVO-A-001

## Qualifiers:

## Organic

## Inorganic/Gamma Spectroscopy

RL - Reporting Limit

DF - Dilution Factor

\* - Surrogate values outside of control limits

B - Analyte detected in the associated Method Blank &gt; RL

E - Exceeds GC/MS Calibration Range

H - Analysis Performed Outside of Holding Time

J - Estimated - Analyte detected below quantitation limits

ND - Not Detected at the Reporting Limit

U - Not Detected at the Reporting Limit

\* - Duplicate analysis outside of control limits

B - Value less than RL, but &gt;= MDL

H - Analysis Performed Outside of Holding Time

M - Target RL Not Achieved via gamma spectroscopy

N - Spike Recovery outside accepted recovery limits

U - Analyzed but not detected/Not detected above MDA via gamma spectroscopy

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/23/05

CLIENT: STOLLER RIN#05F0470

LVL LOT #: 0503L028

WORK ORDER: 11830-003-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	05F0470-001.002	% Solids	92.3	%	0.01	1.0
		Petroleum Hydrocarbons	190	MG/KG	36.1	1.0
-002	05F0470-002.002	% Solids	89.0	%	0.01	1.0
		Petroleum Hydrocarbons	45.6	MG/KG	37.3	1.0
-003	05F0470-003.002	% Solids	90.5	%	0.01	1.0
		Petroleum Hydrocarbons	59.3	MG/KG	36.6	1.0
-004	05F0470-004.002	% Solids	91.3	%	0.01	1.0
		Petroleum Hydrocarbons	36.5 u	MG/KG	36.5	1.0
-005	05F0470-005.002	% Solids	90.2	%	0.01	1.0
		Petroleum Hydrocarbons	36.7 u	MG/KG	36.7	1.0
-006	05F0470-006.003	Petroleum Hydrocarbons	1.0 u	MG/L	1.0	1.0

## **APPENDIX E - BOREHOLE LITHOLOGIC LOGS AND WELL COMPLETION**

**There were no borehole Lithologic Logs completed during this remedial activity.**

Site Street Address RFETS - 10808 Highway 93

City Golden

## **APPENDIX F - WASTE DISPOSAL MANIFESTS**

## Building 331 UST Remediation Project (DieselTanks)

9-Apr-05

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill
3/14/2005	00034561	331DieselTanksPS	20	BFI 93
3/11/2005	00034460	331DieselTanksPS	20	BFI 93
3/11/2005	00034461	331DieselTanksPS	20	BFI 93
3/11/2005	00034459	331DieselTanksPS	20	BFI 93
3/10/2005	00034415	331DieselTanksPS	20	BFI 93
3/10/2005	00034443	331DieselTanksPS	20	BFI 93
3/10/2005	00034430	331DieselTanksPS	20	BFI 93
3/10/2005	00034432	331DieselTanksPS	20	BFI 93
3/10/2005	00034398	331DieselTanksPS	20	BFI 93
3/10/2005	00034382	331DieselTanksPS	20	BFI 93
3/10/2005	00034440	331DieselTanksPS	20	BFI 93
3/10/2005	00034384	331DieselTanksPS	20	BFI 93
3/10/2005	00034454	331DieselTanksPS	20	BFI 93
3/10/2005	00034458	331DieselTanksPS	20	BFI 93
3/10/2005	00034402	331DieselTanksPS	20	BFI 93
3/8/2005	00034257	331DieselTanksPS	20	BFI 93
3/8/2005	00034264	331DieselTanksPS	20	BFI 93
3/8/2005	00034259	331DieselTanksPS	20	BFI 93
3/8/2005	00034269	331DieselTanksPS	20	BFI 93
3/7/2005	00034216	331DieselTanksPS	20	BFI 93
3/7/2005	00034247	331DieselTanksPS	20	BFI 93
3/7/2005	00034223	331DieselTanksPS	20	BFI 93
3/7/2005	00034235	331DieselTanksPS	20	BFI 93
3/5/2005	00034086	331DieselTanksPS	20	BFI 93
3/5/2005	00034060	331DieselTanksPS	20	BFI 93
3/5/2005	00034065	331DieselTanksPS	20	BFI 93
3/5/2005	00034061	331DieselTanksPS	20	BFI 93
3/5/2005	00034064	331DieselTanksPS	20	BFI 93
3/5/2005	00034075	331DieselTanksPS	20	BFI 93
3/4/2005	00034046	331DieselTanksPS	20	BFI 93
3/4/2005	00034048	331DieselTanksPS	20	BFI 93
3/4/2005	00034022	331DieselTanksPS	20	BFI 93
3/4/2005	00033992	331DieselTanksPS	20	BFI 93

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill
2/4/2005	00034016	331DieselTanksPS	20	BFI 93
3/3/2005	00033941	331DieselTanksPS	20	BFI 93
3/3/2005	00033971	331DieselTanksPS	20	BFI 93
3/3/2005	00033961	331DieselTanksPS	20	BFI 93
3/3/2005	00033969	331DieselTanksPS	20	BFI 93
3/3/2005	00033984	331DieselTanksPS	20	BFI 93
3/3/2005	00033926	331DieselTanksPS	20	BFI 93
40 Records	1,368,836.0	.0	800.0	.0

## Building 331 UST Remediation Project (DieselSoil)

9-Apr-05

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill
3/14/2005	00034546	331DieselSoilPS	20	BFI 93
3/14/2005	00034528	331DieselSoilPS	20	BFI 93
3/14/2005	00034537	331DieselSoilPS	20	BFI 93
3/14/2005	00034535	331DieselSoilPS	20	BFI 93
3/14/2005	00034501	331DieselSoilPS	20	BFI 93
3/12/2005	00034505	331DieselSoilPS	20	BFI 93
3/12/2005	00034516	331DieselSoilPS	20	BFI 93
3/12/2005	00034517	331DieselSoilPS	20	BFI 93
3/12/2005	00034514	331DieselSoilPS	20	BFI 93
3/12/2005	00034513	331DieselSoilPS	20	BFI 93
3/12/2005	00034512	331DieselSoilPS	20	BFI 93
3/12/2005	00034511	331DieselSoilPS	20	BFI 93
3/12/2005	00034508	331DieselSoilPS	20	BFI 93
3/12/2005	00034486	331DieselSoilPS	20	BFI 93
3/12/2005	00034507	331DieselSoilPS	20	BFI 93
3/12/2005	00034495	331DieselSoilPS	20	BFI 93
3/12/2005	00034497	331DieselSoilPS	20	BFI 93
3/12/2005	00034499	331DieselSoilPS	20	BFI 93
3/12/2005	00034498	331DieselSoilPS	20	BFI 93
3/12/2005	00034494	331DieselSoilPS	20	BFI 93
3/12/2005	00034490	331DieselSoilPS	20	BFI 93
3/12/2005	00034492	331DieselSoilPS	20	BFI 93
3/12/2005	00034488	331DieselSoilPS	20	BFI 93
3/12/2005	00034510	331DieselSoilPS	20	BFI 93
3/12/2005	00034503	331DieselSoilPS	20	BFI 93
3/12/2005	00034483	331DieselSoilPS	20	BFI 93
3/12/2005	00034484	331DieselSoilPS	20	BFI 93
3/11/2005	00034463	331DieselSoilPS	20	BFI 93
3/11/2005	00034476	331DieselSoilPS	20	BFI 93
3/11/2005	00034480	331DieselSoilPS	20	BFI 93
3/11/2005	00034462	331DieselSoilPS	20	BFI 93
3/11/2005	00034464	331DieselSoilPS	20	BFI 93
3/11/2005	00034465	331DieselSoilPS	20	BFI 93

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill
1/11/2005	00034466	331DieselSoilPS	20	BFI 93
3/11/2005	00034473	331DieselSoilPS	20	BFI 93
3/11/2005	00034475	331DieselSoilPS	20	BFI 93
3/11/2005	00034478	331DieselSoilPS	20	BFI 93
3/11/2005	00034474	331DieselSoilPS	20	BFI 93
3/11/2005	00034467	331DieselSoilPS	20	BFI 93
3/11/2005	00034472	331DieselSoilPS	20	BFI 93
3/11/2005	00034470	331DieselSoilPS	20	BFI 93
3/11/2005	00034479	331DieselSoilPS	20	BFI 93
3/11/2005	00034469	331DieselSoilPS	20	BFI 93
3/10/2005	00034411	331DieselSoilPS	20	BFI 93
3/10/2005	00034389	331DieselSoilPS	20	BFI 93
3/10/2005	00034414	331DieselSoilPS	20	BFI 93
3/7/2005	00034161	331DieselSoilPS	20	BFI 93
3/7/2005	00034154	331DieselSoilPS	20	BFI 93
3/7/2005	00034174	331DieselSoilPS	20	BFI 93
3/5/2005	00034088	331DieselSoilPS	20	BFI 93
3/5/2005	00034063	331DieselSoilPS	20	BFI 93
3/5/2005	00034062	331DieselSoilPS	20	BFI 93
3/5/2005	00034076	331DieselSoilPS	20	BFI 93
3/5/2005	00034082	331DieselSoilPS	20	BFI 93
3/5/2005	00034081	331DieselSoilPS	20	BFI 93
3/5/2005	00034109	331DieselSoilPS	20	BFI 93
3/5/2005	00034097	331DieselSoilPS	20	BFI 93
3/5/2005	00034107	331DieselSoilPS	20	BFI 93
3/5/2005	00034096	331DieselSoilPS	20	BFI 93
3/5/2005	00034108	331DieselSoilPS	20	BFI 93
3/4/2005	00033995	331DieselSoilPS	20	BFI 93
3/4/2005	00034003	331DieselSoilPS	20	BFI 93
3/4/2005	00034029	331DieselSoilPS	20	BFI 93
3/4/2005	00034051	331DieselSoilPS	20	BFI 93
3/4/2005	00034055	331DieselSoilPS	20	BFI 93
3/4/2005	00034042	331DieselSoilPS	20	BFI 93
3/4/2005	00034044	331DieselSoilPS	20	BFI 93
3/4/2005	00034012	331DieselSoilPS	20	BFI 93
3/4/2005	00034026	331DieselSoilPS	20	BFI 93

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill	
7/3/2005	00033956	331DieselSoilPS	20	BFI 93	
3/11/2004	00034468	331DieselSoilPS	20	BFI 93	
71 Records	2,438,555.0	.0	1,420.0	.0	

# Building 331 UST Remediation Project (Unleaded)

7-Apr-05

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill
3/19/2005	00034938	331UnleadPS	20	BFI 93
3/19/2005	00034941	331UnleadPS	20	BFI 93
3/19/2005	00034956	331UnleadPS	20	BFI 93
3/19/2005	00034954	331UnleadPS	20	BFI 93
3/19/2005	00034948	331UnleadPS	20	BFI 93
3/19/2005	00034949	331UnleadPS	20	BFI 93
3/19/2005	00034950	331UnleadPS	20	BFI 93
3/19/2005	00034952	331UnleadPS	20	BFI 93
3/19/2005	00034955	331UnleadPS	20	BFI 93
3/19/2005	00034936	331UnleadPS	20	BFI 93
3/19/2005	00034957	331UnleadPS	20	BFI 93
3/19/2005	00034939	331UnleadPS	20	BFI 93
3/19/2005	00034940	331UnleadPS	20	BFI 93
3/19/2005	00034942	331UnleadPS	20	BFI 93
19/2005	00034943	331UnleadPS	20	BFI 93
3/19/2005	00034944	331UnleadPS	20	BFI 93
3/19/2005	00034945	331UnleadPS	20	BFI 93
3/19/2005	00034946	331UnleadPS	20	BFI 93
3/19/2005	00034947	331UnleadPS	20	BFI 93
3/19/2005	00034953	331UnleadPS	20	BFI 93
3/19/2005	00034967	331UnleadPS	20	BFI 93
3/19/2005	00034973	331UnleadPS	20	BFI 93
3/19/2005	00034969	331UnleadPS	20	BFI 93
3/19/2005	00034970	331UnleadPS	20	BFI 93
3/19/2005	00034951	331UnleadPS	20	BFI 93
3/19/2005	00034971	331UnleadPS	20	BFI 93
3/19/2005	00034960	331UnleadPS	20	BFI 93
3/19/2005	00034961	331UnleadPS	20	BFI 93
3/19/2005	00034962	331UnleadPS	20	BFI 93
3/19/2005	00034963	331UnleadPS	20	BFI 93
3/19/2005	00034964	331UnleadPS	20	BFI 93
19/2005	00034965	331UnleadPS	20	BFI 93
3/19/2005	00034966	331UnleadPS	20	BFI 93

ShipDate	BillOfLading	Project	NetQtyShipped	Landfill	
19/2005	00034958	331UnleadPS	20	BFI 93	
3/19/2005	00034972	331UnleadPS	20	BFI 93	
3/21/2005	00035084	331UnleadPS	20	BFI 93	
3/21/2005	00034982	331UnleadPS	20	BFI 93	
3/21/2005	00034978	331UnleadPS	20	BFI 93	
3/21/2005	00034974	331UnleadPS	20	BFI 93	
3/21/2005	00034984	331UnleadPS	20	BFI 93	
40 Records	1,398,409.0	.0	800.0	.0	

## APPENDIX G - SITE CLASSIFICATION CHECKLIST

CLASSIFICATION 1 - CURRENT THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENT						
T	R	N	U	SUB	Threat	Response Action
		√		1.1	Explosive levels, or concentrations of vapors that could cause acute health effects, are present in a residence or other building.	Evacuate occupants, begin emergency abatement measures such as subsurface ventilation, or building pressurization or free product removal. Notify local fire authority.
		√		1.2	Explosive levels of vapors are present in subsurface utility system(s).	Evacuate vicinity immediately, begin emergency abatement measures such as ventilation.
		√		1.3	Free product is present in measurable quantities at ground surface, on surface water bodies, in utilities, or on surface water.	Prevent further free product migration by appropriate containment measures, institute free product removal, restrict area access.
		√		1.4	A water supply well, supply line, or surface intake is impacted** above action levels.	Notify user(s) provide alternate water supply, control contaminated water and treat water at the point-of-use.
		√		1.5	Ambient vapor/particulate concentrations of concern from an acute exposure or safety viewpoint.	Install a vapor barrier, remove the source, or restrict access to affected area.
		√		1.6	Surface water, storm water, or groundwater which is impacted** above action levels is discharging directly to a surface water body used for human drinking water or contact recreation, or a sensitive environment.	Minimize extent of impact by containment measures, and implement habitat management to minimize exposures.

**CLASSIFICATION 2 - SHORT-TERM THREAT (0-6 MONTHS) TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENT**

I	R	N	U	SUB	Threat	Response Action
		√		2.1	Explosive vapor levels, or concentrations that could cause acute health effects, may accumulate in a residence or other buildings within six months.	<i>Assess the potential for vapor migration through monitoring/modeling and remove source, if necessary, or install a vapor migration barrier.</i>
		√		2.2	Surficial soils impacted** above action levels, are exposed and less than 500 ft from public access, dwellings, parks, sensitive environment, playgrounds, day care centers, schools, or similar use facilities.	<i>Remove soils, cover area, or restrict access.</i>
		√		2.3	A water supply well producing from the affected groundwater is impacted** above action levels, or is located less than 120 ft* down-gradient of the known extent of contamination.	<i>Notify owner/user, evaluate need for point-of-use water treatment, hydraulic control, or alternative water supply.</i>
		√		2.4	Groundwater is impacted** above action levels and a water supply well producing from a different interval is within the known extent of contamination.	<i>Notify owner, monitor groundwater well quality and determine need for prevention of vertical migration to the supply well.</i>
		√		2.5	Surface water, storm water, or groundwater, impacted** above action levels, discharges within 500 ft of a surface water body used for human drinking water or contact recreation, or a sensitive environment.	<i>Begin containment measures. Restrict access to areas near discharge. Evaluate magnitude and impact to discharge area.</i>
		√		2.6	Free product, of any measurable thickness on groundwater is discovered.	<i>Prevent free product migration by appropriate containment measures. Begin free product removal immediately.</i>
		√		2.7	Groundwater impacted** above action levels is present offsite.	<i>Define extent and degree of contamination. Notify OIS of name and address of impacted parties.</i>

**CLASSIFICATION 2a - INTERMEDIATE-TERM THREAT (7-24 MONTHS) TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENT**

T	R	N	U	SUB	Threat	Response Action
		√		2a.1	Explosive vapor levels, or concentrations that could cause acute health effects may accumulate in a residence or other buildings within seven to twenty four months.	<i>Assess the potential for vapor migration, through monitoring/modeling and remove source, if necessary, or install a vapor migration barrier.</i>
		√		2a.2	Groundwater is impacted** above action levels and a water supply well producing from the impacted interval is located between 120 ft and 500 ft* down-gradient of the known extent of contamination.	<i>Notify owner/user, evaluate need for point-of-use water treatment, hydraulic control, or alternate water supply.</i>

**CLASSIFICATION 3 - LONG-TERM THREAT (>2 YEARS) TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENT**

	R	N	U	SUB	Threat	Response Action
		√		3.1	Subsurface soils (> 3 ft bgs) are impacted** above action levels, and depth from impacted soils to the first groundwater is less than 50 ft.	<i>Define the extent of contamination. Monitor groundwater. Determine the potential for future contaminant migration to the groundwater.</i>
		√		3.2	Groundwater is impacted** above action levels onsite with the potential to migrate offsite.	<i>Define the extent of contamination. Monitor groundwater. Determine the potential for future contaminant migration to the groundwater at the property boundary.</i>
		√		3.3	Groundwater is impacted** above action levels, and water supply wells producing from the impacted interval are located between 500 ft and ½ mile* down gradient of the known extent of contamination.	<i>Define extent of contamination. Monitor the dissolved plume and evaluate the potential for future contaminant migration, for natural attenuation and the need for hydraulic control.</i>
		√		3.4	Surface water, storm water, or groundwater impacted** above action levels, discharges within 1500 ft of a surface water body used for human drinking water or contact recreation, or sensitive environment.	<i>Investigate potential impact on sensitive environment or surface water body, restrict access to area of discharge and evaluate the need for containment/controls measures.</i>

**CLASSIFICATION 4 - NO DEMONSTRABLE LONG-TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENT**

T	R	N	U	SUB	Threat	Response Action
		√		4.1	Impacted** soils above action levels are located more than 3 ft bgs and are greater than 50 ft above the nearest groundwater.	<i>Monitor groundwater and evaluate effect of natural attenuation on leachate migration.</i>
		√		4.2	Groundwater is impacted** above action levels and water supply wells that do not produce from the impacted interval are located downgradient outside the known extent of contamination.	<i>Monitor groundwater and evaluate effect of natural attenuation on dissolved plume migration.</i>
		√		4.3	Surficial soils impacted** above action levels are exposed and greater than 500 ft from public access, dwellings, parks, sensitive environments, sensitive resources, playgrounds, day care centers, schools, or similar use facilities.	<i>Restrict access to affected soils.</i>

\* These distances are based on conservative assumptions for groundwater flow velocity. These distances can be adjusted provided supporting documentation is submitted to and approved by the OIS.

\*\*If the extent of contamination has not been defined the owner/operator must assume that all potential POEs are within the impacted area.

## **APPENDIX H - SUPPORTING DOCUMENTATION**

- 1. Notice of intent to close and remove 5 underground storage tanks at the Rocky Flats Environmental Technology Site.**
- 2. Underground Storage Tank Closure Inspection Form - conducted by the Division of Oil and Public Safety on 3/11/05.**
- 3. Correspondence from the Division of Oil and Public Safety acknowledging receipt of release notification.**

BILL OWENS  
Governor

JEFFREY M. WELLS  
Executive Director

RICHARD O. PIPER  
Division Director



COLORADO DEPARTMENT OF LABOR AND EMPLOYMENT  
Division of Oil and Public Safety  
Inspection Section  
Tower 3, Suite 610  
1515 Arapahoe Street  
Denver, CO 80202-2117  
(303) 318-8500 ; Fax (303) 318-8518

MAR 10 2005

ACK # 1111 - 05

ROCKY FLATS ENVIRONMENTAL GROUP  
MARK HESSER  
10808 HIGHWAY 93 B4460  
GOLDEN CO 80402-

Dear Sir or Madam:

Your notice of intent to close or remove 5 underground/aboveground storage tanks at:

SITE NAME: ROCKY FLATS

SITE ADDRESS: 10808 HIGHWAY 93

SITE CITY: GOLDEN

has been received by the State Oil Inspection Section.

FACILITY ID # 14897

OWNER ID #: 19360

- ☐ No. of tanks, size, or contents of tanks not included
- ☐ Actual location of tanks not clearly stated
- ☐ No record has been found for this facility. We have assigned this site the above Facility ID #. If there are any other underground storage tanks at this site, you MUST register them on the enclosed form.
- ☒ No mention of a "site assessment" was made. (You must assess the tank site for possible contamination at the time of closure)...see "Note" below and appropriate attachments.
- ☒ You must also notify the Fire department having jurisdiction over the facility, and make sure that no building permit is required by zoning commission.
- ☒ No problems with the notice.

**Please contact the Inspector who services your area 48 hours before the tank is scheduled to be closed/removed. It is mandatory for an Inspector to be present at the time of the tank closure or the removal for sample collections. The Inspector for your area is:**

NA

(999) 999-9999

JOE'L LAMBE 3/2/2005

NOTE: A site assessment is required in accordance with Colorado State Regulations upon closure of the tank(s). The Division of Oil and Public Safety requires site assessment and closure information be documented on one of the new standardized formats (you can get these forms on-line at ops.odle.state.co.us). If contaminated soils, ground water, or free product as a liquid or vapor is discovered during site assessment, or by any other manner, owners and operators must begin corrective action. All closure reports must be kept on site for a period of three years or transferred to the Division of Oil and Public Safety/Remediation Section. The remediation/technical assistance telephone number is (303) 318-8547 to report discovered contamination.

BILL OWENS  
Governor

JEFFREY M. WELLS  
Executive Director

RICHARD O. PIPER  
Division Director



DEPARTMENT OF LABOR AND EMPLOYMENT

Division of Oil and Public Safety

Tower 3, Suite 610, 1515 Arapahoe Street

Denver CO 80202-2117

(303) 318-8500 Fax (303) 318-8518

E-mail [oil.publicsafety@state.co.us](mailto:oil.publicsafety@state.co.us) Web <http://oil.cdle.state.co.us>

UNDERGROUND STORAGE TANK CLOSURE INSPECTION

Date: 3/11/05 ACK # 1111

Facility Name: Rocky Flats Environmental Facility ID: 14897

Address: 10808 Hwy 93 City: GOLDEN ZIP code: 80403

PERMANENT CLOSURE ☒ OR CHANGE-IN-SERVICE ☐ (check one)

1.) OPS notified at least 10-days before closure or change-in-service Yes ☒ No ☐

If not, was the 10-day notice requirement waived by OPS? Yes ☐ No ☒

2.) Date(s) product was removed from tank(s) 503-944 2/20/05  
3579 Product removed

3.) How much product was removed from each tank immediately prior to removal. Tank # 240 400 gallons;  
240 gallons; 400 gallons; 400 gallons; 400 gallons; # 6 gallons

4.) Remover's/Closer's name KAISER HILL - MARK HESSEL

Closure method: # of tanks removed ☒ # of tanks closed-in-place ☐

5.) Condition of tanks at removal BRITTLE FRP. Removed in pieces.

6.) Piping drained and capped, or removed from ground Yes ☒ No ☐

7.) If Closed-in-Place, were they emptied and filled with solid inert material? Yes ☐ No ☒

8.) Remedial Contractor on Site (name) KAISER HILL - MARK HESSEL Yes ☒ No ☐

9.) Site assessment conducted 238 Yes ☒ No ☐

Water or soil samples collected where contamination is most likely at tank site.  
(e.g. directly under tank ends and openings, dispensers, piping joints, and wherever staining or odors are detected)

10.) External release detection method (vapor or groundwater monitoring) operating at time of closure indicates no release occurred. Yes ☒ No ☐

11.) Contamination or free product discovered (check all that apply) Yes ☒ No ☐  
☒ Stained soils ☒ Sheen on groundwater ☒ Free product  
☒ Petroleum Odors ☐ High PID (OVM) readings

Source of release (e.g. tank #, dispenser, overfill, etc.):

Comments: FRP TANKS - BRITTLE - UNABLE TO REMOVE. WHOLE. REMOVED IN  
PIECES FROM TANK PIT - OLD STL TANK FILLED WITH BANDONORS  
25' - 30' FROM TANK PIT. HOLES IN END OF STL TANK.

Inspector's Signature R. [Signature]

BILL OWENS  
Governor

LEROY J. WILLIAMS, JR.  
Acting Executive Director

RICHARD O. PIPER  
Division Director



## DEPARTMENT OF LABOR AND EMPLOYMENT

DIVISION OF OIL AND PUBLIC SAFETY  
Remediation Section  
Tower 3, Ste 610  
1515 Arapahoe Street  
Denver, Colorado 80202-2117  
Phone (303) 318-8500; Fax (303) 318-8518  
E-Mail [oil.publicsafety@state.co.us](mailto:oil.publicsafety@state.co.us)  
Website: <http://oil.cdle.state.co.us>

March 14, 2005

VIA CERTIFIED MAIL #7003 1010 0002 5644 5372

Return Receipt Requested

Facility ID #14897

MARC HESER

DOE

10808 HWY 93 BLDG 460

GOLDEN CO 80403-0464

Re: Request for a Site Summary Form (SSF), a Site Characterization Report (SCR) and an Investigation of Petroleum Contamination at Rocky Flats Environmental Technology Site (RFETS), 10808 Hwy 93, Golden, Jefferson County, Colorado. **Event ID 9752**

Dear Mr. Heser:

On March 11, 2005, the Division of Oil and Public Safety (OPS) was notified that a petroleum release at the above referenced site, which was discovered on March 10, 2005, has been confirmed. OPS requires you to perform an investigation of the release to determine the extent of environmental and public health impacts occurring at this location and surrounding areas.

You are required to submit a Site Summary Form (SSF) to OPS within 45 days of the date of the discovery of the release (April 28, 2005). Information included in the SSF is outlined in Article 5 § 5-2 (a) through (f) of the Colorado Petroleum Storage Tank Regulations 7 C.C.R. 1101-14 (Regulations). A Site Characterization Report (SCR) containing the required information outlined in Articles 4, and 5 and Article 2 § 2-5 and Article 3 § 3-4-7 of the Regulations is due within 90 days of the date of the release discovery (**June 12, 2005**). The SSF and the SCR must be submitted in duplicate on the approved OPS format. The SSF and the SCR report formats are required for all releases that occur on or after February 1, 1999. Reports that are not on the appropriate, approved format will be returned. Please reference the above Event ID Number on all correspondence including reports.

A packet, containing the Reasonable Cost Guidelines and information on Reimbursement procedures will be sent to the owner/operator upon request. Additional information such as the Regulations, Colorado Statutes, and the new report formats are located on the Internet at <http://oil.cdle.state.co.us/>. The Regulations and the Storage Tank Facility Owner/Operator Guidance Document (commodity # 615-82-44-0899) may also be obtained at the Colorado Central Stores: Telephone (303) 321-4164. For an electronic version (disk) of the new report formats call (303) 318-8547.

Event 9752  
March 14, 2005  
Page 2

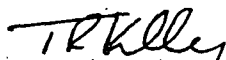
Event 9752  
March 14, 2005  
Page 2

In accordance with the Regulations you are required to submit a Corrective Action Plan (CAP) (Article 5 § 5-4) within 150 days of the release if:

- (1) There is evidence that groundwater wells or surface waters have been or may be affected by the release;
- (2) Free product is found;
- (3) There is evidence that contaminated soils may be in contact with groundwater; or
- (4) There are any indications of a current, perceived, or potential threat to human health.

Your cooperation in dealing promptly and properly with this situation is appreciated. Failure to comply with this request subjects you to potential penalties as set forth in C.R.S. § 8-20.5-107. Please address correspondence to me and reference the Event ID. If you have any questions call me at (303) 318-8544.

Sincerely,



TR Kelley  
Environmental Protection Specialist  
Remediation Section

cc: Marilyn Hajcek, P.G., Remediation Section Manager

33/33